trans2care

UNIVERSITÀ
DEGLI STUDI DI TRIESTE

THE BIG STEP FROM RESEARCH TO INNOVATION 2007-2013

A SOCIAL REPORT AND THE LEGACY OF THE CROSS-BORDER STRATEGIC PROJECT TRANS2CARE

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2007-2013

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programma per la cooperazione transfrontaliera
Italia-Slovenia

evropsko teritorialno sodelovanje
program čezmejnega sodelovanja
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Projekt sofinancira Evropski sklad za regionalni razvoj

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Projekt Transregionalno omrežje za inovacijo in prenos tehnološkega znanja za izboljšanje zdravstva sofinancirana v okviru Programa čezmejnega sodelovanja Slovenija-Italija 2007-2013 iz sredstev Evropskega sklada za regionalni razvoj in nacionalnih sredstev.

trans2care

Transregional Network for Innovation and Technology Transfer to Improve Health Care

Rete transregionale per l'innovazione ed il trasferimento tecnologico per il miglioramento della sanità

Transregionalno omrežje za inovacijo in prenos tehnološkega znanja za izboljšanje zdravstva

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Sabina Passamonti

EUT EDIZIONI UNIVERSITÀ DI TRIESTE

Il rendiconto sociale del progetto Trans2Care è pronto due anni dopo la conclusione delle attività, il 30 settembre 2014. In seguito, il progetto è stato inserito nel programma di 12 eventi pubblici, promossi da Università e dagli uffici della Commissione europea: serviva un buon esempio.

Con questo progetto, noi Partner abbiamo creato una rete di cooperazione scientifica che non ha confini, abbiamo unito le forze per migliorare i risultati della ricerca, rendendoli adeguati al trasferimento alle aziende, e per costruire una base culturale per futuri progetti di ricerca e innovazione. Ciò è servito ai 14 ricercatori, assunti con i fondi del progetto per 3 anni, al loro successivo impiego nel settore della ricerca e sviluppo in sede locale.

Questo rendiconto non è pensato per essere un punto di arrivo, ma un quadro di riferimento alla portata di tutti, per affrontare sfide di sviluppo territoriale, sociale, economico e scientifico, che di giorno in giorno s'ingrossano per complessità e urgenza. Ora non si parte più da zero.

Si ringrazia il Programma per la Cooperazione Transfrontaliera Italia-Slovenia 2007-2013 per il continuo supporto al nostro lavoro.

Poročilo o projektu Trans2Care je pripravljeno dve leti po zaključku svojih dejavnosti, na dan 30. septembra 2014. Po zaključku projekta je bil projekt vključen v program 12 javnih prireditev, ki jih spodbujajo Univerze in uradi Evropske komisije in služil kot dober primer.

S tem projektom smo partnerji vzpostavili mrežo čezmejnega sodelovanja, ki nima meja, ter združili moči za izboljšanje rezultatov raziskav, z namenom da postanejo primerni za prenos v podjetja. Vzpostavili smo tudi trdno podlago za prihodnje raziskovalne in inovacijske projekte. To je bilo še posebej koristno za 14 raziskovalcev, ki so bili 3 leta zaposleni na projektu, za njihovo kasnejšo zaposlitev na področju raziskav in razvoja na lokalni ravni.

To poročilo ni mišljeno kot prihod na cilj, ampak okvir za vsakogar, ki se dan za dnem sooča z izzivi lokalnega, družbenega, gospodarskega in znanstvenega razvoja, ki postaja vse bolj kompleksen in nujen. V tem trenutku tako ne začenjamo več iz ničle.

Zahvaljujemo se Programu Čezmejnega sodelovanja Slovenija-Italija za nadaljnjo podporo pri našem delu.

The social report of the Trans2Care project is ready, two years after the conclusion of its activities on 30th September 2014. Subsequently, the project has been included in the programme of 12 public events, promoted by Universities and by the offices of the European Commission and serving as a good example.

With this project, we the Partners have created a network for scientific cooperation that has no borders, joining forces to improve the results of research, rendering them suitable for transfer to companies and to construct a cultural basis for future research and innovation projects. This was useful for the 14 researchers, hired with project funds for 3 years and for their subsequent employment in research and development at a local level.

This report is not meant to be a point of arrival, but a framework for everyone facing the challenges of local social, economic and scientific development that, day by day, is becoming more pressing in its complexity and urgency. Now, however, we are not starting from scratch all over again.

We would like to thank the Programme for Cross-Border Cooperation Italy-Slovenia 2007-2013 for the continued support of our work.

Trieste, 6th December 2016

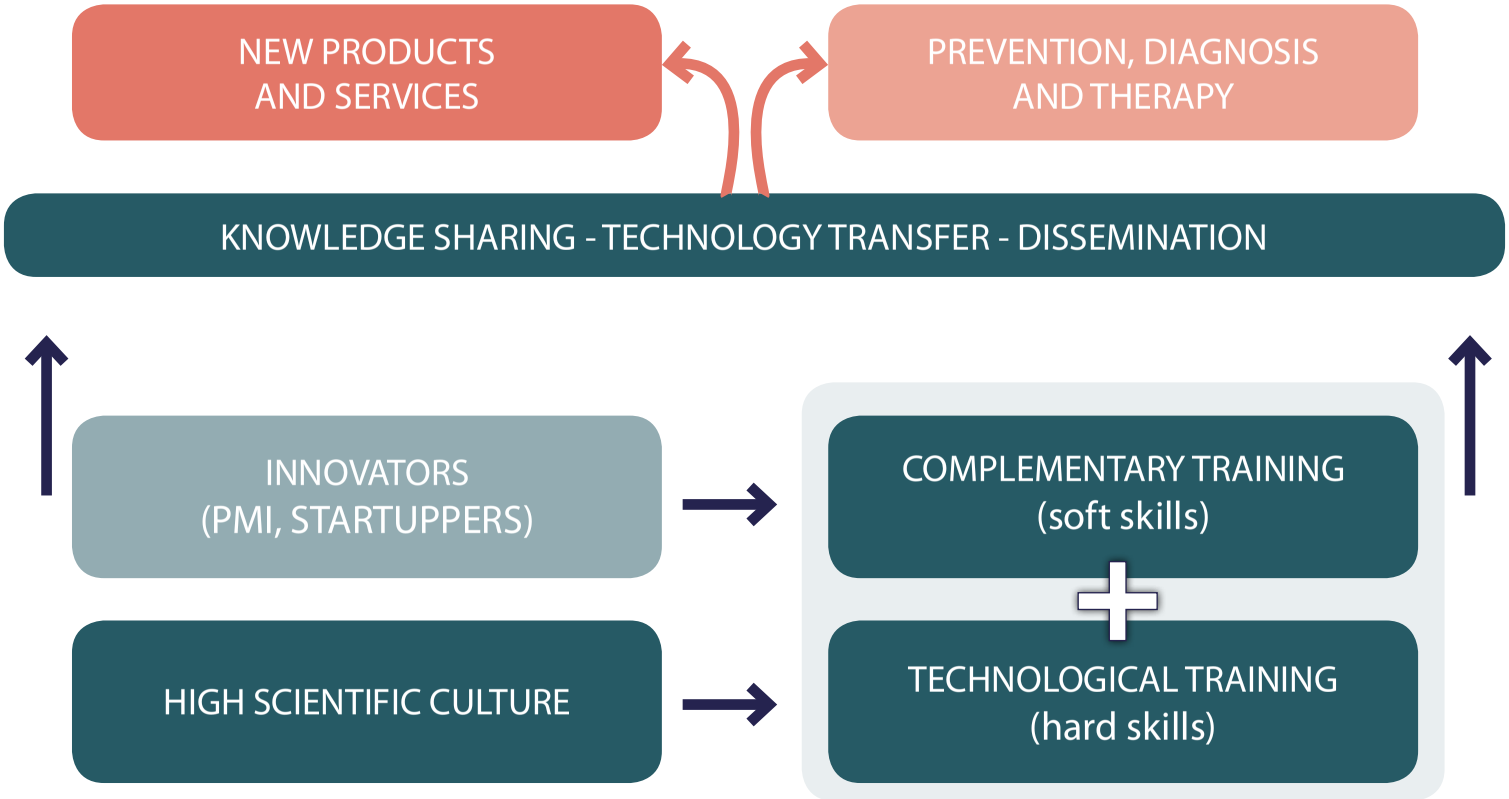
INDEX

SCHEMES

FIGURES

TABLES

TRANS2CARE AT A GLANCE



Scheme 1 - The concept of the Trans2care project. A team of post-doctoral researchers was recruited, with these goals: 1. To provide them with technological training within an academic environment ("high culture"). 2. To add a complementary training scheme aiming at developing an entrepreneurial mind set. 3. To put this mix in practice, by means of a series of actions for knowledge sharing, technology transfer and dissemination. These are the necessary conditions to channel research results towards the development of products and services for health and health care.

THE PROJECT'S GOAL

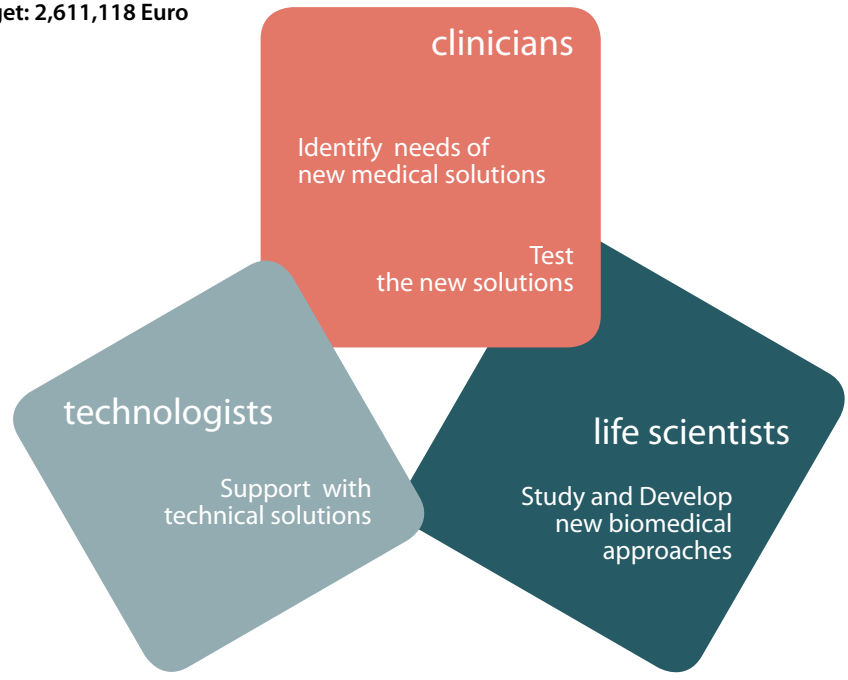
Trans2Care was a project aimed at creating a cross-border network of research and healthcare institutions, operating in various scientific fields, ranging from mathematics to chemistry and from biology to medicine.

The network involved 13 Partners located in Slovenia and North-eastern Italy, coordinated by the University of Trieste.

The goal of the project was enable the network to develop new products and services for the improvement of the health system. This means to use the stock of research results and scientific knowledge to develop useful applications in diagnosis and treatment of common diseases.

To achieve this goal, the project recruited 14 post-doctoral researchers, who were engaged full-time in technological and complementary training, enabling them to develop the skills required to translate research results in innovations.

Start Date: April 1st 2011
End date: September 30th 2014
Budget: 2,611,118 Euro



Scheme 2 - The network dynamics.

THE PARTNERS

Table 1 - List of Trans2Care Partners, their Team managers and scientific competences.

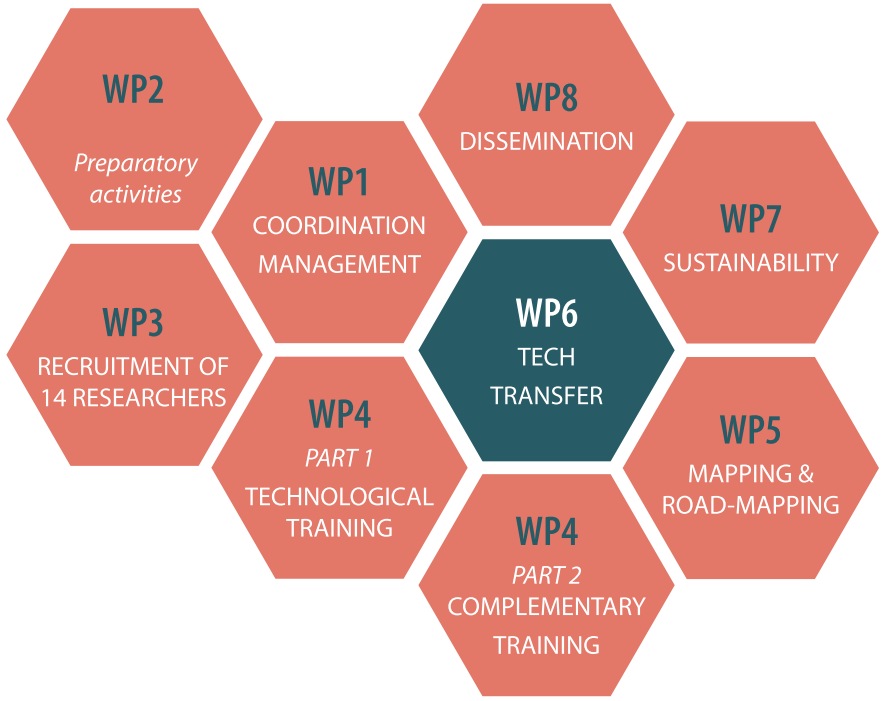
	INSTITUTION	TEAM MANAGER	COMPETENCES
Leader	**University of Trieste, Italy**	*Sabina Passamonti*	biology, biochemistry
PP 1	**National Institute of Chemistry, Slovenia**	*Marjana Novič*	chemometrics, statistics
PP 2	**International School for Advanced Studies, Italy**	*Giuseppe Legname*	neurobiology
PP 3	**University of Nova Gorica, Slovenia**	*Mladen Franko*	analytical chemistry
PP 4	**University of Ferrara, Italy**	*Caterina Borgna*	pediatrics, bone metabolism
PP 5	**t2i, technology transfer and innovation, Italy**	*Franca Bandiera*	tech transfer, training
PP 6	**General hospital "Dr. Franca Derganca" Nova Gorica, Slovenia**	*Matjaž Klemenz*	Intesive care, cardiovascular lab
PP 7	**University Ca' Foscari, Italy**	*Paolo Ugo*	biosensors
PP 8	**University of Udine, Italy**	*Enrico Braidot*	plant biology, biochemistry
PP 9	**Pediatric Research Hospital IRCCS Burlo, Italy**	*Tarcisio Not*	pediatrics, coeliac diseae
PP 10	**Blood Transfusion Centre of Slovenia, Slovenia**	*Vladka Čurin Šerbec*	immunology, stem cells
PP 11	**Valdoltra Orthopaedic Hospital, Slovenia**	*Ingrid Milošev*	bio-compatible materials
PP 12	**University of Primorska, Slovenia**	*Maja Čemažar*	human nutrition

THE ACTIVITIES

The activities were organised in 8 workpackages.
WP1 was project management, including the preparatory activities (WP2), and started with organising a project's tailored recruitment of researchers (WP3).
Training for innovation and complementary skills was WP4, after which the researchers were ready to be engaged in both mapping the biomedical technologies available in the Programme Area (WP5) and activating knowledge transfer with the industries (WP6).

Thus, the enlargement of the network to other research and industry stakeholders could be promoted via cooperation agreements and some grant applications (WP7).

The dissemination activities (WP8) ensured a strong network identity and promoted the benefits of cross-border cooperation.



Scheme 3 - The project's focus on technology trasfer from research to industry.

THE PROJECT'S COMMON ACTIVITIES

The Trans2Care staff met for common activities on 58 days. The project's management meetings were plenary, i.e. all team managers and researchers, with the administrative support staff during the first meetings.

The other meetings were organised in the frame of the training for the researchers and the public communication of the project's activities.

The thick project's agenda shows the intensity of the cross-border collaboration.

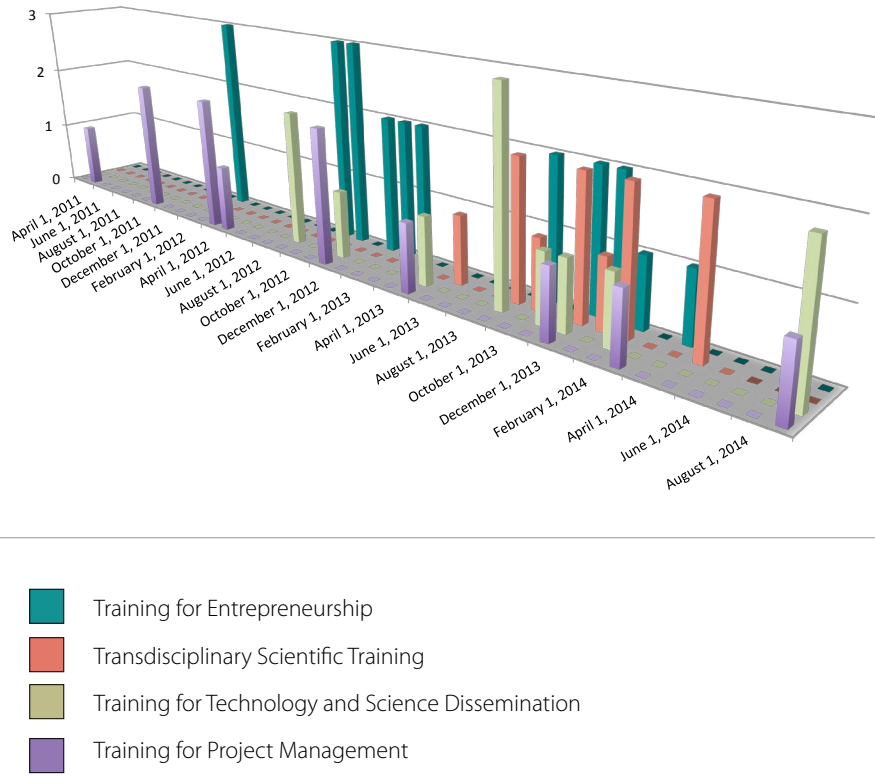


Figure 1 - The chronology of the project's common activities. Activities are classified according to different categories of training and networking.

THE BUDGET

The budget for these activites is shown in Figure 1. The largest investment was for recruiting 14 researchers.

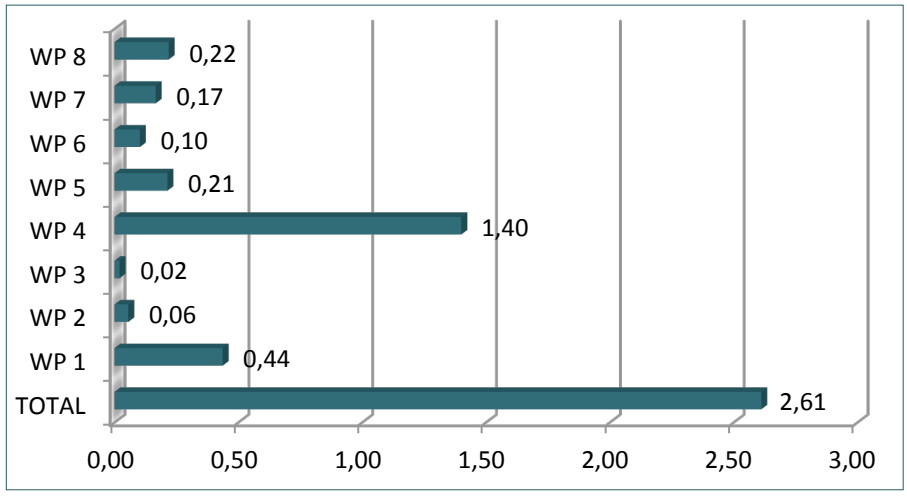


Figure 2 - The budget for the project's activities.

SYNOPSIS OF OUTPUTS

Work Package	Activity	OUTPUTS
WP1 COORDINATION AND MANAGEMENT	Monitoring reports	Project active from 01.04.2011 to 30.09.2014. No time extension. 97.7% use of funds.
	Reporting to the Managing Authority	8 reports.
WP2 PREPARATORY ACTIVITIES	Preparatory activities	Project submitted to the Managing Authority on 10.09.2009 (call 1/2009). Project funded on 10.03.2011.
WP3 RECRUITMENT OF PERSONNEL	Joint Call for researchers	Drafting of a common Researcher Profile and an outline of the project's tasks to be used in the public job's announcements. Public calls released by the 13 Trans2care Partners.
	Selections and recruitment	14 researchers recruited and employed for the expected contract duration (no dropping out).
WP4 TRAINING AND MOBILITY	Joint training and hands-on	Each researcher has completed his/her technological training; 2.38 scientific papers/researcher; 3.77 active conference contributions/ researcher.
	Complementary training	Each researcher has completed the complementary training; 58 working days of joint training.
	Cross-border and inter-sectoral mobility	Researchers have organised and attended 11 inter-disciplinary scientific seminars; 20.7 % of all scientific papers and 37.8 % of all conference contributions are the result of joint activities.
WP5 MAPPING AND ROAD-MAPPING	State of the art in the programme area	Mapping of results, technologies, actors and competences. Reported in the book: CROSS-BORDER ITALY-SLOVENIA BIOMEDICAL RESEARCH: ARE WE READY FOR HORIZON 2020? (ISBN 978-88-8303-572-2). Open access.
	Strategic agenda for biomed research	The vision and the strategic agenda are stated in the position paper titled *The system of Italian-Slovenian cross-border biomedical research: a strategic element of smart specialisation for the Policy of Cohesion 2014-2020* is published in CROSS-BORDER ITALY-SLOVENIA BIOMEDICAL RESEARCH: ARE WE READY FOR HORIZON 2020? (ISBN 978-88-8303-572-2; page 410-418). See also another position paper in this book (page 74).
	Thematic working groups	Established 6 thematic working groups: Industry, Clinics, Academics, Media, General Public, Strategic Coordination.
WP6 TECHNOLOGY TRANSFER	Technology audits	52 technology audits carried out in cross-border biomedical SMEs and hospitals.
	Technology solutions database	The database was limited to the technology solutions developed by the project's Partners. See website, section Results, sub-section What the researchers have done.
	Demand/offer mettings	14 focused meetings with industries.
WP7 NETWORK ENLARGEMENT AND CONSOLIDATION	New members involvement campaign	11 agreements with new partners, to enlarge the Trans2care network.
	New collaborations between industry, healthcare, academia	
	Program for engagement of young researcher in companies	Not done, according to authorised changes in the project's workplan.
	Participation in calls for future network sustainability	Career plans for each researcher published on the project's website (section Results). 5 joint grants and 6 Erasmus agreements signed.
	Study of the founding of a spin-off company	Goal unattainable, due to the low range of Technology Readiness Levels of research products mapped in the Cross-border area. More realistic approach to biomedical innovation described in position paper "The innovation mediator" (page 74).
WP8 COMMUNICATION PLAN	Dissemination of activities and project results	3 books, 10 public events, including 7 conferences, 12 scientific events, 11 scientific workshops, 13 meetings with industries, 12 videos in Youtube, 14 presentations in Slideshare, 4 social media, 33 scientific papers, 53 active participations to scientific conferences.
	Info and teaching support production	
	Event organisation	
	Website	www.trans2care.eu

SYNOPSIS OF THE TECHNOLOGY SOLUTIONS TO IMPROVE HEALTHCARE

Product/service type	TRL	Disease	Description of application	Utility	Project Partner	Partnership feature
Immuno-assay	7	Celiac disease	Analysis of intestinal biopsies	Early diagnosis of subjects at risk of celiac disease.	PP9 IRCCS Burlo	Hospital (with external partners)
Immuno-assay	4	Celiac disease	Analysis of serum antibodies	Differential diagnosis of healthy and celiac patients.	PP9 IRCCS Burlo - PP7 Università Ca' Foscari	Hospital, University
Immuno-assay	4	Acute kidney injury	Analysis of a serum biomarker	Early diagnosis, to enable-prompt kidney failure management.	PP3 University of Nova Gorica - PP6 General hospital "Dr. Franca Derganca" Nova Gorica	Hospital, University
HPLC assay	4	Pre-disease states, metabolic disease	Analysis of serum biomarkers	Population screening, disease prevention, empowerment	PP3 University of Nova Gorica - LP University of Trieste	University, University
Service	4	Pre-disease states, metabolic disease	A scheme for nutrition counselling, to be developed for delivery to the general population.	Population screening, disease prevention.	PP12 University of Primorska	Hospital
Biomaterial	3	Muscle and joint injuries	A biosynthetic and biomimetic matrix for tissue regeneration	Osteochondral and muscle repair.	LP University of Trieste	Hospital
In silico assay	2	Oxidative stress-related conditions	A model for membrane transport ability of various pharmaceutically interesting compounds	Drug discovery	PP1-Kemijski Institut	Research institution
In silico assay	2	Prion disease	Models for the prediction of antiprion activity of compounds	Drug discovery	PP1-Kemijski Institut	Research institution
Signal analysis	4	Hypotension	Analysis of heart rate variability	Improved diagnosis of autonomic nervous system response	PP6 General hospital "Dr. Franca Derganca" Nova Gorica	Hospital (with external partners)

TRANS2CARE IN DETAIL

How do we organize ourselves?

WP1 - COORDINATION AND MANAGEMENT

A feature of this project has been the "joint implementation", so that Partners have equally contributed to the the implementation of activities and the accomplishment of results.

Management system

The Lead Partner

The Lead Partner has ensured the implementation of the Project (according to article 20 of Regulation (EC) n. 1080/2006 of European Parliament and Coucil of 05.07.2006.

The management of the Project has been conceived as a 3-level structure:

- Network Level - Includes the management of the interactions among LP and PPs and between LP and the Managing Authority.
- Partner Level - Concerns the internal management of the project activities (both technical/ scientific and administrative) of each PP to ensure the Partner specific deliverables and timeschedule are properly met.
- Researcher Level - Takes care of the specific activities assigned to each researcher and of the coordinated actions among researchers belonging to different PPs.

The overall management has therefore been performed in an integrated way and has been monitored, steered and coordinated by the Lead partner. The latter has been supported by various administrative units of University of Trieste as well as by some external units.

Internal Supporting Units

These are within the University of Trieste:

- Administrative office of the Department of Life Sciences, where the team manager is affiliated,
- Human resources office (for appointments of collaboration given to experts),
- Public procurement office (for appointments of collaboration given to firms),
- Industrial liaison office (for interaction with companies),
- Public relations and press office (for event organisation and media contacts),
- Scientific dissemination office (for the valorisation of project's results),
- Legal affairs office (for regulatory issues).

External Supporting Units

- Project management has been assigned to T&B Associati s.r.l., a consultancy company based in AREA Science Park (Padriciano, Trieste).
- Website is powered by NetScience Content Management System (CMS) developed and maintained by Promoscience s.r.l., based in AREA Science Park in Padriciano, Trieste.
- Project Visual identity has been developed by Divulgando s.r.l., Trieste, a company specialised in communication & dissemination actions, with the support of a freelance journalist, Cristina Favento.

- Consultancy about project activities alignment with European Cohesion policies has been given by Giorgio Tessarolo.
- Consultancy on implementation of some parts of the project (work package 5) has been given by Luca Escoffier.

Project management in practice

These are the actions needed to support project implementation:

- Support to the Team Manager of the Lead Partner (listening, suggesting, inspiring, warning ...)
- Planning and scheduling of routine network activities
- Financial management of the Project
- Periodical technical and financial reporting to the Joint Technical Secretariat / Managing Authority
- Risk Planning and corrective and preventive actions analysis
- On-demand trouble shooting for Lead Partner and Project Partners
- Project change control
- Support to researchers for their management activities
- Complementary training management
- Support for website management and updating.

How can we "measure" the progress of Trans2Care?

The rate at which the financial grant is used is a Key Performance Indicator. The project has utilised up to 98% of its budget (Figure 2).

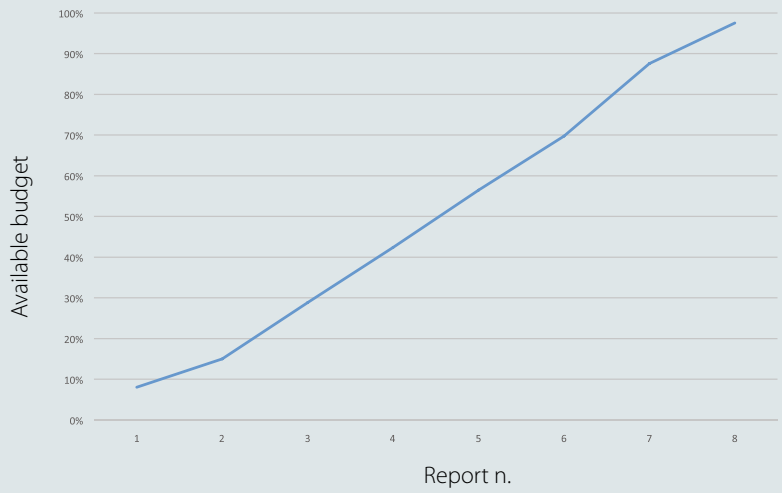


Figure 3 - The cumulative use of budget at each biannual report.

WP1 - COORDINATION AND MANAGEMENT

Lesson learned

Positive and negative aspects mixed up

PLUS

- *Strong commitment of the Team manager of the Lead Partner*
- *Good commitment of most Partners*
- *Great "community" of recruited researchers*
- *Important scientific and technical results*
- *Great Website for promotion / dissemination*
- *Good support by Joint Technical Secretariat / Managing Authority*
- *Good networking with other biomedical Cross-border Cooperation Projects*
- *Strong interest in the Project by Companies*
- *Nice opportunities for Project sustainability*

MINUS

- *Project start-up a little too slow leading to (a small) decommitment of funds*
- *Poor initial involvement of administrative people*
- *Slow build up of full understanding of Cross-border Cooperation Programme rules and guidelines in the partnership*
- *Poor involvement of some Team Managers*
- *Too high administrative burden on some researchers*
- *Way too high global administrative burden*

What should / can / must be improved ?

- *Even better initial planning to speed up project startup*
- *Better planning of public tenders (go for "integrated ones"…)*
- *Delegate more to young researchers (they should be the real driving force…)*
- *Shorten the lag time between programme Calls and project approval*
- *Massive reduction of burocracy with full use of Information and Communications Technology*
- *Simplify budget structure*
- *Simplify change request procedures*

Written by Adriano Savoini, project manager

How do we fund our project?

WP2 - PREPARATORY ACTIVITIES

Most of the Partners were already cooperating, knew each other and were willing to engage in a shared project. Using meetings and telematic contacts, it has been possible to incorporate new Partners and find a common line. The Lead Partner has been responsible for the preparation and submission of both the Expression of Interest, in response to call 1/2008 (on 15.12.2008) and the final proposal, called Application Form, in response to call 1/2009 (on 10.09.2009).

On 28.04.2010, the ranking list of the strategic projects applying for funding in response to call 1/2009 was published in the Official Bulletin of Regione Autonoma Friuli Venezia Giulia, hosting the Managing Authority of the Cross-border Cooperation Programme Italy-Slovenia 2007-2013. Trans2Care ranked fifth and first among the projects without funding.

Nevertheless, on 10.03.2011, Trans2Care was granted the funding, after a complex series of events, ended with the increase in financial allowance for the call 2/2009 by as much as 10 millions euros. The onset of the project and the detailed description of the Partners and their roles is described in "The Partners and the objectives of Trans2Care, an Italy-Slovenia cross-border network of science and healthcare institutions" (ISBN 978-88-8303-512-8).

Lesson learned

The project's preparation is as important as its implementation.
The early involvement of all partners on the main goal and general methods is fundamental.

Figure 4 - The cover of the first book of Trans2Care project.

We want a young staff to form a stable international network!

WP3 - CROSS-BORDER RECRUITMENT OF STAFF

The 14 researchers recruited by the project have been the main participants in the cross-border cooperation and integration between different scientific disciplines and various cultural, economic and social entities.

Their recruitment took place simultaneously, according to a public tender.

Features of the tender were:

- A core section, describing the project objectives, which was agreed by the Partners and included in the Application Form (thus approved by the Managing Authority);
- Other details relevant to the specific scientific and technological contribution expected by each Partner;
- Compliance with the European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers.
- The preparation of a common convening notice, published on the website of the various Partners and, simultaneously, through other means of communication (such as Il Sole 24 Ore and Primorski dnevnik).

The curriculum vitae and the motivation letter submitted by each candidate was shared among Partners. The team managers provided a simple evaluation score, that was used by the project partners for the local selection procedures. In this way, the selection procedures, though implemented locally, had a wide consensus among the Partners.

Lesson learned

The joint recruitment of the project's researchers was carefully prepared and implemented on the basis of a common candidate profile and list of tasks. This laid the basis for an excellent understanding among the Partners.

TRANS2CARE STAFF

At the end of the process of recruitment, the 14 Trans2Care researchers started their activities in Fall 2011, under the supervision of Partners'Team Managers.

Table 2 - List of the recruited researchers and their supervisors.

Partner N / ID	Team Managers	Project's Researcher
LP – Università degli Studi di Trieste	Sabina PASSAMONTI	Jovana ČVOROVIĆ
		Lovro ŽIBERNA
PP1 – Kemijski Inštitut Ljubljana	Marjana NOVIČ	Katja VENKO
PP2 – Scuola Internazionale Superiore di Studi Avanzati	Giuseppe LEGNAME	Maura BARBISIN
PP3 – Univerza v Novi Gorici	Mladen FRANKO	Mitja MARTELANC
PP4 – Università di Ferrara	Caterina BORGNA	Alessandro BALDAN
PP5 – Treviso Tecnologia-t2i	Franca BANDIERA	Giorgia FAVARO
PP6 – Splošna Bolnišnica Dr. Franca Derganca	Matjaž KLEMENC	Polona LIKAR
PP7 – Università Ca' Foscari di Venezia	Paolo UGO	Morena SILVESTRINI
PP8 – Università di Udine	Enrico BRAIDOT	Francesca D'ESTE
PP9 – IRCCS Burlo Garofalo	Tarcisio NOT	Luigina DE LEO
PP10 – Zavod Republike Slovenije Za Transfuzijsko Medicino	Vladka ĆURIN ŠERBEC	Uroš RAJČEVIĆ
PP11 – Ortopedska Bolnišnica Valdoltra	Ingrid MILOŠEV	Franja ŠULEK
PP12 – Univerza na Primorskem - Fakulteta za Vede o Zdravju	Maja ČEMAŽAR	Ana PETELIN

Transformation: from isolated researchers to a multidisciplinary and international team

WP4 - TRAINING AND CROSS-BORDER MOBILITY OF THE RESEARCHERS

Objectives

To empower young researchers to establish productive cooperations with industry, associations or the public administration, one must offer them both a technological training in various scientific fields as well as supplementary training in innovation, technology transfer, product development, intellectual property, business, management & communication.

Activities

Specific training and mobility have been designed, so that the Researchers gained a deep view about the technological assests of Trans2Care network. Collaborations have flourished.

Furthermore, the Researchers have undertaken a reasoned scheme of complementary training, during the which they have gained the skills needed to independently take on resposibilities in a research&development environment, to work in team and to tranfer knowledge to people having the most different cultural background.

WP4.1 - Technological training

Each researcher has done his/her technological training under the supervision of the team manager. Activities have been developed so to strengthen or activate cross-border collaborations. Results have been published in scientific journals.

Table 3 - List of Trans2Care researchers and their personal scientific skills, acquired during the project.

Researcher		My scientific skills
LP1	**Jovana Čvorović**	My research topics are cancer biology and natural products. I'm involved as well in the design, implementation and analysis of in vitro and in vivo experiments.
PP2	**Lovro Žiberna**	I've been dealing in this years pharmacology studies, laboratory experiments with animals, experimentation on isolated organs, cell cultures, data analysis and biomedical statistics.
PP1	**Katja Venko**	My competences are in field of molecular biology, microbiology, environmental biomarkers, genetics, molecular evolution with phylogeographical analyses, chemoinformatics with modelling of structure-activity relationships of chemical compounds.
PP2	**Maura Barbisin**	I am expert in biology, immunology, gene expression, neurodegeneration, genomics and genotyping.
PP3	**Mitja Martelanc**	I've studied analytical chemistry in the last years and I'm getting more and more passionate about biochemistry.
PP4	**Alessandro Baldan**	My fields are Genetics, Molecular Biology, Biostatistics,Molecular Epidemiology, Clinical Research, Karyotyping, Webpage Management, Conference planning, Multimedia Communications.
PP5	**Giorgia Favaro**	My tasks are related to prior art searches, IP procedure and fillings, accounting, business management, project management, innovation, property and business improvement.
PP6	**Polona Likar**	My field of studies nowadays are physiology of autonomic nervous system and biomarkers for acute kidney injury.
PP7	**Morena Silvestrini**	I've made my research in the field of electroanalytical techniques accompanied with skills in other analytical methods, micro-nano fabrication methods for the preparation of electrochemical sensors/biosensors for biological/medical applications.
PP8	**Francesca D'Este**	My main field of studies in this years have been cell biology, molecular biology and microbiology.
PP9	**Luigina De Leo**	I've worked on cell biology, animal experimentation, immunohistochemestry, autoimmunity diseases, data collection and analysis.
PP10	**Uroš Rajčević**	My research topics are gene expression analysis; Immune-assays; Protein expression systems (recombinant DNA) and analysis (proteomics), Applied histology, In vivo animal experiments, Mouse mAb production, Cell line models, Data processing, Microscopy.
PP11	**Franja Šulek**	My competences are in chemistry, nanotechnology and project management.
PP12	**Ana Petelin**	My research topics are nutrition, health and natural products. I'm also involved in the design, implementation and analysis of in vitro and in vivo experiments.

WP 4.2 - Complementary training

The complementary training was meant at giving the Researchers some fundamental information enabling them to exploit their research skills and results to develop innovations, to valorise their research data, to move from the public research sector to the private one, or to establish academia-industry partnerships.

Table 4 - The 5 main pillars of the complementary training scheme.

COMMUNICATION	INTELLECTUAL PROPERTY MANAGEMENT	INNOVATION, TECH TRANSFER, PRODUCT DEVELOPMENT	MANAGEMENT & BUSINESS	TOOLS FOR RESEARCH & CAREER DEVELOPMENT
1. TEAM BUILDING 2. SCIENTIFIC COMMUNICATION: OPPORTUNITIES AND RISKS 3. COMMUNICATION AND BRANDING	4. PATENT SEARCH, ANALYSIS AND BUSINESS 5. BEST PRACTICES FOR MANAGING IP IN EARLY STAGE STARTUPS 6. UNDERSTANDING, PROTECTING AND MONETIZING YOUR IP	7. INNOVATION AND TECH TRANSFER 8. NEW PRODUCT DEVELOPMENT ACCORDING TO ISO9000:2008 9. HOW TO GET THE MOST FROM A TECH AUDIT 10. TECH AUDITS INSIDE TRANS2CARE 11. TECHNOLOGY READINESS LEVEL EVALUATION 12. ECOSYSTEMS FOR INNOVATION	13. FUNDAMENTAL OF ECONOMICS 14. PROJECT MANAGEMENT 15. BUSINESS PLANNING	16. GUIDED TOUR TO CBM, ELETTRA SYNCHROTRON AND FERMI FACILITIES 17. CONTRACTS & AGREEMENTS:SENSIBLE ISSUES 18. JOB PLACEMENT AND LABOUR MARKET 19. EU PROJECTS

Edited by Dr. Francesca D'Este, University of Udine (Project Partner 8).

WP4.2 - Complementary training - List of training sessions

1. Team building

Objectives: to identify patterns of communication within a group; to improve interpersonal communication; to build up a team spirit based on the awarness of Tran2Care origins and assets.
Coaches: Monica Angeloni, Franca Bandiera, Treviso Tecnologia; Sabina Passamonti, LP, Adriano Savoini, T&B Associati s.r.l.
Organiser: PP5; Location: Treviso Tecnologia, Treviso, 15.02.2012

2. Patent search, analysis and business

Objectives: to understand why intellectual property rights are a strategic tool in the hand of researchers, research entities and general public and how scientific research could benefit from patent prior art search.
Coaches: Elisa Toniolo, Daria Agnoletto, Treviso Tecnologia
Organiser: PP5; Location: Treviso Tecnologia, Treviso, 16-17.02.2012

3. Scientific communication: opportunities and risks

Objectives: to understand how scientific communication may influence positively and negatively the outputs of research.
Coaches: Giorgia Favaro and Franca Bandiera, Treviso Tecnologia
Organiser: LP; Location: Area Science Park Padriciano (Trieste), 15.10.2012

4. Innovation and Technological transfer

Objectives: to bring innovation and tech transfer basic concepts into one's current work.
Coach: Adriano Savoini, T&B Associati s.r.l.
Organiser: LP; Location: Area Science Park Padriciano (Trieste), 15-16.10.2012

5. Best practices for managing IP in early stage startups

Objectives: Fundamentals of creation, commercialization and monetization of intangible assets and technologies.
Coaches: Efrat Kasznik, Stanford Graduate School of Business
Organiser: LP; Location: University of Trieste, Trieste,16.10.2012

6. Understanding, protecting and monetizing your intellectual property

Objectives: to understand the mechanics of intellectual property protection and its marketingtechniques.
Coach: Luca Escoffier, Usque Ad Sidera LLC
Organiser: LP; Location: Area Science Park Basovizza (Trieste), 26.11.2012

7. New product development according to ISO9000:2008

Objectives: to present the operative path from an idea to the launch of a final product / service on the market, according to ISO9000 regulations.
Coach: Adriano Savoini, T&B Associati s.r.l.
Organiser: LP; Location: Area Science Park Basovizza (Trieste), 26.11.2012

8. Guided tour to Cluster for Biomedicine (CBM), ELETTRA Synchrotron and FERMI facilities

Objectives: to visit the research infrastructures and establish contacts with the scientists in Area Science Park, Trieste.
Coach: Paola Storici, Elettra Sincrotrone Trieste
Organiser: LP; Location: Area Science Park Basovizza (Trieste), 27.11.2012

9. Fundamentals of economics

Objectives: to provide the knowledge and basic logic approach on economic and financial business operations.
Coach: Stefano Puissa, T&B Associati s.r.l.
Organiser: LP; Location: Area Science Park Basovizza (Trieste), 24-25.01.2013

10. How to get the most from a technological audit

Objectives: to understand what is a "Technology Audit" and how to implement it.
Coaches: Anilkumar Dave, Treviso Tecnologia; Paolo De Stefanis, Labor s.r.l.
Organiser: PP5; Location: University of Trieste, Trieste,18-19.02.2013

11. Technology audits inside Trans2Care

Objectives: to prepare Trans2Care Researchers to independently carry out a technological audit.
Coach: Paolo De Stefanis, Labor s.r.l.
Organiser: LP; Location: University of Trieste, Trieste, 20.03.2013

12. Project Management

Objectives: to increase competences of an independent researcher in successfully managing projects in a complex and variable environment.
Coach: Stefano Puissa, T&B Associati s.r.l.
Organiser: LP; Location: University of Trieste, Trieste, 24-25.10.2013

13. Contracts and agreements

Objectives: to identify the main issues to be written in a Letter of Intents or a Memorandum of Understanding or the other kinds of Agreements (Confidentiality, Material Transfer, etc.).
Coach: Adriano Savoini, T&B Associati s.r.l.
Organiser: LP; Location: University of Nova Gorica, Nova Gorica, 18.12.2013

14. Communication and branding part I

Objectives: to improve your soft skills in communication and to give you some basic media strategy tips, in order to achieve the project's dissemination targets.
Coach: Cristina Favento, freelance journalist
Organiser: LP; Location: University of Nova Gorica, Nova Gorica, 18.12.2013

15. Communication and branding part II

Objectives: to best promote yourself and your results.
Coach: Cristina Favento, freelance journalist
Organiser: LP; Location: University of Trieste, Trieste, 23.01.2014

16. Job placement and labour market

Objectives: To understand the basics of job & apprenticeship contracts in research institutions and SMEs, in the frame of both Italian and Slovene legislation.
Coaches: Roberta Nunin, University of Trieste, and Zvone Vodovnik, University of Ljubljana
Organiser: LP; Location: University of Trieste, 24.01.2014

17. Ecosystems for innovation

Objectives: to understand the cooperative nature of innovation: what factors and what interactions are needed to create an innovation ecosystem.
Coaches: Stephen Taylor, Area Science Park, Trieste; Guido Bortoluzzi, University of Trieste
Organiser: LP; Location: University of Trieste, Trieste, 01.04.2014

>> Extra courses

1. Advanced Training Session: Technology audits inside Trans2Care
   Objectives: to supervise the reports of the internal technological audits.
   Coach: Paolo De Stefanis, Labor s.r.l.
   Organiser: LP; Location: University of Trieste, Trieste, 21.03.2013
2. Technology Readiness Levels Evaluation
   Objectives: to evaluate research results according to the TRL scale.
   Coach: Adriano Savoini, T&B Associati s.r.l.
   Organiser: LP; Location: University of Trieste, Trieste, 11.02.2014
3. European projects
   Objectives: to increase abilities in drafting a EU Project proposal.
   Coach: Adriano Savoini, T&B Associati s.r.l.
   Organiser: LP; Location: University of Trieste, Trieste, 14.04.2014
4. Business planning
   Objectives: to correctly define key factors relevant for a Business Plan.
   Coach: Stefano Puissa, T&B Associati s.r.l.
   Organiser: LP; Location: University of Trieste, Trieste,15.04.2014

WP4.3 – Cross-border and cross-disciplinary mobility

The researchers have organised workshops on specific scientific topics, in which their Institutions have strong expertise. The speakers were their team managers, colleagues or guests. The researchers have also had the opportunity to present their activities, to both strengthen research collaborations and to implement the Communication plan(WP8).

Below is the list of workshops, pointing to the diversity of the scientific and technical competences of the Partners and the rich training offered to the Researchers.

1. Bilirubin in translational medicine
   University of Ferrara, Ferrara 06.06.2013
   Promoter: PP6
2. Trans2Care Cancer workshop: from prevention to novel treatment approaches
   University of Primorska, Izola 06.09.2013
   Promoter: PP12
3. Molecular tools to study neurodegeneration
   SISSA, Trieste 19.09.2013
   Promoter: PP2
4. Orthopaedic diseases: diagnostics, treatments and research
   Valdoltra Orthopaedic Hospital, Ankaran 18.10.2013
   Promoter: PP11
5. Cellular membrane transport
   University of Trieste, Trieste 03.12.2013
   Promoter: LP
6. Biomarkers in cardiology
   University of Nova Gorica, Nova Gorica 20.12.2013
   Promoter: PP3 & PP6
7. Coeliac disease and chronic Inflammatory diseases of the intestine: inside and outside the intestine
   Area Science Park, Trieste 31.01.2014
   Promoter: PP9
8. Mathematics in chemistry and biology
   National Institute of Chemistry, Ljubljana 10.02.2014
   Promoter: PP1
9. Crossbord Biomedical Research Conference
   University of Trieste
   Promoter: LP
10. Monoclonal antibodies: production, research and clinics
    City Hall, Ljubljana, 15-16.05.2014
    Promoter: PP10

Involvement in coordination and management

The Researchers have attended all project general meetings, where they have learned the principles of project partnership and coordination. Most researchers have also been directly involved in financial management and reporting.

1. Pre-kick-off meeting "HOW TO START"
   University of Trieste, Trieste, 04.05.2011

2. Trans2Care Kick-Off Meeting
   University of Trieste, Trieste, 22.11.2011

3. Spring Meeting
   University of Ferrara, Ferrara, 19-20.04.2012

4. Meeting of Trans2Care Researchers
   Prepotto, Trieste, 14.05.2012

5. Winter meeting
   National Institute of Chemistry, Ljubljana, 11-12.12.2012

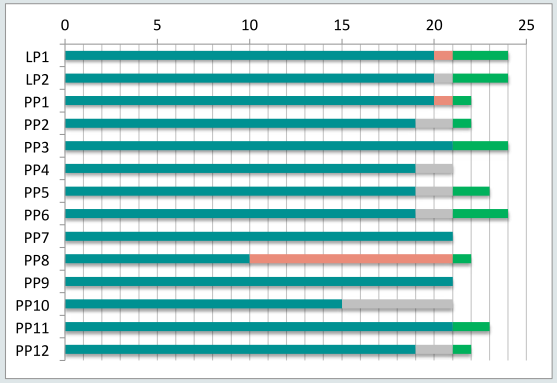
6. Second spring meeting
   Treviso Tecnologia, Treviso.
   University Ca' Foscari, Venezia, 28-29.05.2013

7. Second winter meeting
   University of Nova Gorica, Nova Gorica, 19-20.12.2013

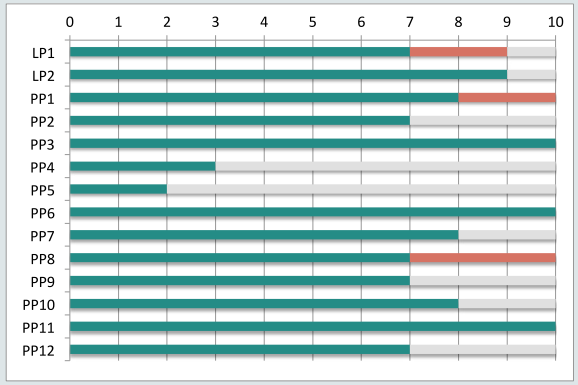
8. Third winter meeting
   University of Trieste, 26.02.2014

Records of researchers' attendance to the training sessions

A - Researchers' attendance to complementary training sessions (n of days)



B - Cross-border scientific workshops (n) for trans-disciplinary training for each Researcher



C - Project's general meetings (n), a special training for each Researcher

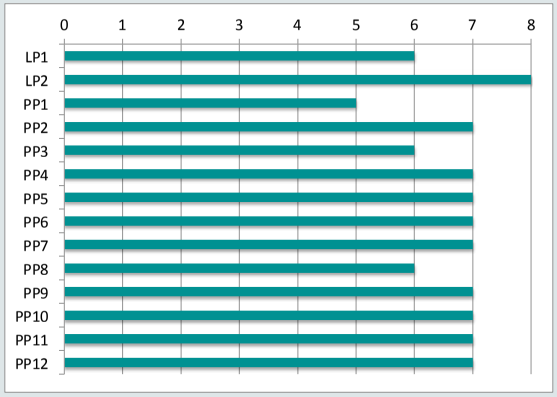
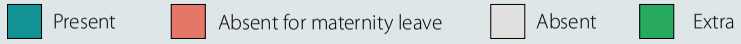


Figure 5 - Records of researchers' attendance to the training sessions. A - The Researchers attendance to the complementary training scheme. The scheme was developed in 21 courses, held in the period 15.02.2012-01.04.2014 (see list at pages 29-31). Other extra courses (see list at page 26) were attended by some Researchers. B - The Researchers attendance to regional scientific workshops. A series of 10 workshops, organised by single or pairs of Partners (see list at page 32), had the double goal to disseminate the projects' activities in the Partners' local environment and to provide trans-disciplinary training to the Researchers. C - The Researchers attendance to the general project's meetings. The researchers had a principal role in reporting the Parterns costs and results.



Researchers' career plans

Towards the end of the project, the Researchers drafted their carreer plans. Their document is much more than a standard curriculum vitae. In a very concise way, they communicated their competeces, values and aspirations. This was also a deliverable of the project (WP 7.4).

>> JOVANA ČVOROVIĆ

Who am I?
Creative, perceptive, passionate about writing, hard-working, enthusiastic, responsible, thorough, curious.

Education
- Creative, perceptive, passionate about writing, hard-working, enthusiastic, responsible, thorough, curious
- Creative, perceptive, passionate about writing, hard-working, enthusiastic, responsible, thorough, curious

Employment
- University of Trieste, Italy – postdoc, Trans2Care project;
- CICbioGune, Bilbao, Spain – postdoc, NanoTher project;
- University of Trieste, Italy – PhD student;
- University of Illinois, College of Medicine, Chicago, IL, USA – research fellow
- Institute for Cardiovascular Diseases "Dedinje", Belgrade, Serbia

Personal preferences
Working in a creative, diligent, dedicated, enthusiastic, international environment.

Values
Both self-starter and team player, able to meet tight deadlines, excellent written and verbal communication skills, international experience, foreign languages.

>> my goals

Short Term
- **Work** – Round off current research in the field of colon cancer & diet; acquire new skills and competences in scientific project management, medical writing and editing

Mid Term (2-5 yrs)
- **Work** – Obtain a permanent position with opportunity for further progression

Long Term >5yrs
- **Work** – Independent position

Current competencies, skills, knowledge, experience
Research topics: cancer biology, natural products
Design, implementation and analysis of in vitro and in vivo experiments
Scientific writing skills – preparation of scientific abstracts, posters, papers, reports and projects; reviewing scientific papers
Public speaking and presentation skills.

Development needs and skills required for current job and future goals
Hands-on experience in scientific project management
New skills and competences in medical writing and scientific editing.

>> LOVRO ZIBERNA

Who am I?
Analytical, driven, ambitious, hard-working, perceptive, creative, enjoy designing new medical hypotheses, enjoy working with data, systematic.

Education
- Masters – MPharm (master of pharmacy).
- PhD – Pharmacology (Faculty of Medicine, University of Ljubljana)
- DCO – doping control officer for International Cycling Union (UCI) and SLOADO

Employment
- PhD student researcher at Faculty of Medicine, Institute of Pharmacology and Experimental Toxicology – (2007-2011)
- Post-doc position at University of Trieste, Department of Life Sciences, TRANS2CARE – (2011-2014)

Personal preferences
Being involved in a creative and innovative environment with opportunities for big performance.

Values
Hard-work, new ideas, lateral thinking.

Limitations
No working experience outside the academic world.
Having no desire to live/work outside European Union.

>> my goals

Short Term
- **Work** – Secure an academic position with the opportunity for progression on demonstration of my abilities
- Learn new skills, and apply them

Mid Term (2-5 yrs)
- Become an assistant professor
- To lead a research project in pharmacology and/or doping

Long Term >5yrs
- Make an important discovery
- To lead a research group

Current competencies, skills, knowledge, experience
Pharmacology, work with laboratory animals, experimentation on isolated organs, cell cultures, data analysis and biomedical statistics
Teaching skills, dissemination skills (presentations, communication with media), organizational skills, social-network communication, website management.

Development needs and skills required for current job and future goals
Gain knowledge on computation skills in pharmacology and bioinformatics to apply into research.
Improve coding and scripting skills to be able to develop independent software applications.
Obtain skills on Big Data analysis in medicine.
Participate in international opportunities to create new approaches in the fight against doping.

Action Plan
Exploring job opportunities (job and grant applications) and enlarging professional network. To decide and develop personal brand in the scientific research, and publish scientific publications.

>> KATJA VENKO

Who am I?
Open-mind life science researcher, biologist, honest, benevolent, inquisitive, systematic, precise, tolerant, team-working oriented, having high personal standards, keen to help, passionate about learning new skills.

Education
- Masters – Bsc in Biology (Study field: Molecular biology) and Diploma of Education, Biotechnical Faculty, University of Ljubljana, Slovenia
- PhD – Genetics (Postgraduated Study of Biological and Biotechnical Sciences), Biotechnical Faculty, University of Ljubljana, Slovenia

Employment
- PhD student and researcher at National Institute of Biology, Marine Biology Station, Piran, Slovenia (2005 – 2010)
- Post-doctoral researcher at National Institute of Chemistry, Laboratory of Chemometrics, Ljubljana, Slovenia (2011 – 2014, TRANS2CARE project)

Personal preferences
I prefer dynamics jobs, which offers me a challenge and opportunities to achieving new knowledge. I would like to be a part of creative team in intellectually-stimulating and flexible environment. Specially, I'm interested in applicative research projects, which could give me the opportunity to be involved in designing new high-quality products/services.

Values
Team-work, communication and social skills, learning, cooperation, flexibility, work-life balance, good laboratory practice and quality management system.

Limitations
Having only working experience at academic positions and having no experience in industry/business world, prefer to work in Slovenia or nearby countries.

>> my goals

Short Term
Work – finish current prion drug design study
– Increase sport activities, to take in order the house

Mid Term (2-5 yrs)
Work – learning new computational tools
– get experience in cell biology (in vitro laboratory experiments)
– working on applicative research project with industry

Long Term >5yrs
- **Work** – being involved in academic lectures/ demonstrations
– having stable research position in innovative working team in academia or industry

Current competencies, skills, knowledge, experience
I have experience in molecular biology, microbiology, environmental biomarkers, genetics, molecular evolution and phylogeographical analyses, modelling of structure-activity relationships of chemical compounds. Currently I'm focused to gain new knowledge in the field of computational biology and bioinformatics. I have dissemination and organisational meeting skills, basic knowledge in project management.

Development needs and skills required for current job and future goals
In future I would be very happy, if we could realize the proper experimental drug design study including, firstly, the computational modelling of new chemical compounds, and secondly, their biological activity validation with the lab experimental assays. Thereby, I have to gain skills on molecular modelling tools and cell biology assays. I need to upgrade project management skills – business plan development, technology transfer methods and fundamentals of economics.

Action Plan

Looking for job opportunities (industry and public research grant applications) in the field of life science

Scientific publications

Using professional networks to make my profile visible to wider community.

www.linkedin.com/pub/katja-venko/78/796/160

www.researchgate.net/profile/Katja_Venko/

www.trans2care.eu/

>> MAURA BARBISIN

Who am I?

Molecular and cell biologist, creative and experienced scientist, basic research, applied research, product development, technology transfer, biotech industry, inquisitive, organized, analytical, disciplined, leadership, mentorship, excellent communicator, enjoy working with others in team, project leader, supervisor, biosafety officer, grant proposals, science dissemination.

Education

- Masters – MSc-Biological Sciences (laurea vecchio ordinamento)
- State Exam and Qualification for the Biologist profession
- Certificate in Middle School and High School Teaching

Employment

- SISSA, Department of Neuroscience, Trieste, Italy- Postdoctoral Fellow with Research assignment, Biosafety officer (2011-current)
- Life Technologies, Genetic Analysis Division-R&D, Foster City, California (USA)- Sr. Staff Scientist, Team leader, Supervisor, Biosafety officer (2001-2011)
- ISS, Laboratory of Virology, Rome, Italy-Junior Scientist (1998-1999)
- Azienda ospedaliera S. Maria degli Angeli, Microbiology and Immunology Department, Pordenone, Italy-Biologist apprenticeship and fellowship (1993-1996)

Personal preferences

Being part of an active group with a supervising role and personal growth opportunities.

Values
Working on projects that will help society, mentoring students/younger employees, leading a project and maximize results, spreading of science to non scientific audiences, filling the gap between science and industry, create efficiency, contribute to team objectives.

Limitations
No formal university teaching experience.

>> my goals

Short Term
- **Work** – Conclude current scientific project; secure publications and next contract
- **Home** – Secure loan for a house

Mid Term (2-5 yrs)
- **Work** – Gain visibility in academia; expand network of industry contacts; create liaison between academia and industry using my skills matured in both fields
- **Home** – Support family

Long Term >5yrs
- **Work** – Work in a university technology transfer office or in a company business development group
- **Home** – Travel

Current competencies, skills, knowledge, experience
Basic and applied research in academia and biotech industry; molecular biology applied to immunology, virology, forensics and neurodegeneration; cell culture, gene expression, genomics and genotyping techniques; knowledge of product development and innovation processes, project management, people management; work in cross-functional teams; expert writer of publications, grant proposals and patents.

Development needs and skills required for current job and future goals
Seek opportunities to teach academic courses or cover other academic roles

Expand communication skills to enlarge network of contacts, even through social platforms

Understanding of business development environment in the region, in Italy, in EU.

Action Plan
Course/master/certificate in business management

Internship in tech transfer office/company

Membership of networking groups (e.g., The Hub).

>> MITJA MARTELANC

Who am I?
Joyful, communicative, determined, hard-working, stubborn, curious, energetic, high personal standards.

Education
- Master of Science: Faculty for Chemistry and Chemical Technology Chemistry (Univ. Ljubljana, 2005)
- PhD: Analytical chemistry (Univ. Ljubljana, 2010)

Employment
- Young researcher – National Institute of Chemistry – 4.5 years
- Head of Purchases at the Center of Excellence PoliMat (Ljubljana) – 1 year
- Postdoctoral position at University of Nova Gorica – The Laboratory for Environmental Research – 3 years

Personal preferences
Working as part of a international team in an intellectually-stimulating environment allowing me to exercise my competence.

Values
Strong collaborations, recognitions, travel, intellectual challenge, problem-solving attitude, teamwork, work-life balance.

Limitations
No international experience, too low number of scientific publications.

>> my goals

Short Term
- **Work** – To publish at least three scientific papers. To find a post-doc position in Italy
- **Home** – Increase sport activities, to take in order the house

Mid Term (2-5 yrs)
- **Work** – To become an assistant professor at University of Nova Gorica
- **Home** – Increase sport activities, to settle down as a family

Long Term >5yrs
- **Work** – To obtain a permanent position at University of Nova Gorica
- **Home** – Final house settlement, children (max. 2), journey through out America with my family

Current competencies, skills, knowledge, experience
Analytical chemistry, project management, language skills ability to communicate, ability to work in professional panels work with scientific institutions.

Development needs and skills required for current job and future goals
To improve my knowledge in biochemistry

Search for opportunities for technical training in biomedical materials (academia, industry)

To develop diplomatic language/speaking – spoken and written

To develop project management skills – business plan development.

Action Plan
Looking for research opportunities abroad for postdoctoral position
To start doing long term scientific studies in the field of clinical medicine especially on bilirubin role in biological paths.

>> ALESSANDRO BALDAN

Who am I?

Dynamic researcher with international experience. Interested in epidemiolgy and bioinformatics to study the effect of the enviroment on disease development. Very attentive to social problems and passionate about improving health care. Very versatile and quick learner with attention to details.

Education

- Masters – MSc in Genetic and Molecular Epidemiology, University of Pavia, Italy
- BSc/MSc in Molecular Biology, University of Padova, Italy
- PhD – Translational Biomedicine, University of Verona, Italy

Employment

- Biomedical Researcher, University St. Anna Hospital, Dept. of Medical Sciences, Division of Pediatrics, Ferrara, Italy. Trans2Care Project
- Biologist, Meus Ltd, Kima-Vacutest Group, Padova, Italy
- Geneticist, Citotest Ltd, Padova, Italy
- Research Assistant, Department of Anatomy and Developmental Biology, University College London, UK

Personal preferences

Be part of an international, stimulating and dynamic environment where I can use my skills. Team-working oriented. Always willing to deepen my knowledge and learn from senior researchers. I am fascinated by the study of gene-gene and gene-environment interaction. I also master the most common techniques of molecular biology and cytogenetics.

Values

Willing to cooperate and share my experience to enhance the work of the group I'm working in.

Limitations

None that I'm aware of.

>> my goals

Short Term

- **Work** – Mainly academia. Set the present research projects for future developments to improve health care
- **Home** – Travelling, visit new places, cultures and meet new people and old friends

Mid Term (2-5 yrs)

- **Work** – Join an international team and work on clinical studies and trials with a strong genetic component and social importance
- **Home** – Travelling, visit new places and meet new people and old friends.

Long Term >5yrs

- **Work** – Achieve an academic position. Develop dissemination plans of scientific results. Leave a hand-print in health care
- **Home** – Travelling, visit new places and meet new people and old friends

Current competencies, skills, knowledge, experience

Genetics, Cytogenetics, Molecular Biology, Biostatistics, Medical Statistics, Molecular Epidemiology, Human Genetics, Clinical Research, Cell Culture, Karyotyping, Webpage Management, Conference planning, Multimedia Communications. R, Plink, Haploview, Chromowin Plus, SimWalk, Mendel, fastPHASE.

English: Bilingual Proficiency (Level C1 of the Common European Framework of Reference for Languages). Italian: native. French: limited working proficiency.

Research projects in: GEIRD, a multidisciplinary project aimed at collecting information on biomarkers of inflammation and oxidative stress, individual and ecological exposures (outdoor and indoor air pollutants), diet, early-life factors, genetic traits and medication use, in large-scale series of accurately

defined phenotypes of asthma, rhinitis and COPD. Aging: Klotho and Thalassemia. Beta-thalassemia major is the transfusion-dependent condition that leads to growth retardation, poor musculature and peculiar bone changes (bone marrow expansion, osteopenia and osteoporosis). Similar physiological conditions also were observed in animal knock-down models for the Klotho gene.The aim of this study is to evaluate Klotho levels in beta-thalassemic patients and controls to find possible correlations between the protein level and manifestations such as osteoporosis, poor musculature or growth retardation. Lactose Intolerance and Bone Status: a matter of Genetics and Diet. Lactose intolerance (LI) is the clinical syndrome that follows the ingestion of lactose in people with lactase deficiency. A single nucleotide polymorphism of the lactase gene has been associated with lactase persistence. Patients with LI tend to reduce the dairy products' intake, the main sources of calcium in the diet. The aim of the study is to evaluate bone mineral density (BMD), calcium intake, diet and BMI in adolescents-young adults with LI compared with age- and gender-matched controls.

Development needs and skills required for current job and future goals

Improve skills in Biostatistics, Bioinformatics and Clinical Trials. I am fascinated by the study of gene-gene and gene-environment interactions and my goal is to join groups with high numbers of subjects and advanced facilities for important genetic analysis.

Action Plan

Looking for research opportunities in an international environment using social networks to make my profile visible to the international scientific community.

http://www.linkedin.com/pub/alessandro-baldan/28/40a/bb2
https://www.researchgate.net/profile/Alessandro_Baldan/
http://www.trans2care.eu/

>> GIORGIA FAVARO

Who am I?
Analytical, ambitious, inquisitive, perceptive, creative, enjoy working with data, systematic, disciplined, enjoy learning new things.

Education
- Masters – International Economy

Employment
- S&P Associates (2010) – accountant
- Studio Rebecca (2010-2011) – accountant
- Trans2care researcher c/o Treviso Tecnologia (2011-2014) – researcher in intellectual property and innovation opportunities

Personal preferences
Being involved in a competitive environment with opportunities for performance, deal with innovative and motivating projects, work in an international environment.

Values
Create efficiency, contribute to team objectives and common objectives as well as perform as individual.

Limitations
No scientific experience.

>> my goals

Short Term
- **Work** – Developing further competences and experiences. Secure a position with opportunity for progression on demonstration of ability.
  Learn new skills and apply them.
  Secure a position with opportunity for progression on demonstration of ability

Mid Term (2-5 yrs)
- **Work** – Have a significant and usable expertise in the field of IP.
  Develop spendable skills on industry/academy collaborative projects.

Long Term >5yrs
- **Work** – Be an expert on IP and innovation.
  Share my competences.

Current competencies, skills, knowledge, experience
Prior art searches, IP strategy and management, IP fillings, accounting, business management, project management, innovation, investigation, infringement, organizational and administrative skills, dissemination skills.

Development needs and skills required for current job and future goals
Strengthen expertise on IP management and on IP legislation.

Develop expertise on intellectual assets evaluation and economic benefits.

Develop expertise on IP evaluation and economic benefits.

Participate in opportunities to create and develop new business units offering new services.

Action Plan
Develop plan to foster IP consciousness in the public research sector.
Gain expertise on IP evaluation and economic competencies.
Participate in international projects to contribute to create a common framework on IP.

>> POLONA LIKAR

Who am I?
Analytical, ambitious, perceptive, precise, inquisitive, systematic, disciplined. I like dynamic jobs, where I can apply my knowledge and offers me a challenge and possibility for achieving new expertise and skills.

Education
- University graduate of Ecology Faculty for Environmental Sciences at University of Nova Gorica
- Professional examination on general administrative procedure in Slovenia (ZUP, 2010)

Employment
Independent Researcher at General Hospital of Nova Gorica - 3 years.

Personal preferences
Being involved in multidisciplinary and international team to gain new knowledge.

Values
Environmentalism, nature, health, personal satisfaction at work, knowledge, ambition, cooperation, flexibility, challenge, travel, family.

Limitations
Working experience, specialisation.

>> my goals

Short Term
- **Work** – To achieve all objectives till the end of the project Trans2care and to find a new job
- **Home** – Support my son at his first year at school. Visit my brother in New Zealand

Mid Term (2-5 yrs)
- **Work** – To gain a stable employment that will give me a personal satisfaction and possibility for personal growth
- **Home** – To ensure a good education of the child and to confirm commitment to long term relationship with the rest of the family

Long Term >5yrs
- **Work** – Senior position on my field
- **Home** – Support my family

Current competencies, skills, knowledge, experience
Environmental sciences, physiology of autonomic nervous system and baroreflex reflex, biomarkers for acute kidney injury, enzyme-linked immunosorbent assays (ELISA), cell cultures, cytotoxicity asssays.

Project management skills (financial reporting), dissemination skills, organisational skills, translation (english to slovenian), web-site management (administrator), technology auditing.

Development needs and skills required for current job and future goals
To develop project management skills – bussines plan development.

To gain more experiences in the environmental and / or biomedical field.

Improve foreign languages for better cooperation in international projects.

To upgrade education with a phD or specialisation on the promising field.

Action Plan
Looking for opportunities for learning how to apply for European grant (courses etc).

Looking for opportunities to gain additional working experiences and networking with other researchers and research institutes (projects, coolaborations, volunteering).

Attending IELTS language course for English and language course for Italian.
Participate in opportunities to create and develop a new start-up company.
Reviewing calls for postgraduate education.

>> MORENA SILVESTRINI

Who am I?
Creative, disciplined, rigorous, ambitious, determined, hard-working, curious, with strong personality. I am able to carry out any kind of research with motivation and passion. I face any problem as a challenge and I always try to solve them by finding the best solution.

Education
- Master's degree in Chemical Sciences for Conservation and Restoration, University Ca' Foscari of Venice, Italy
  Thesis title: "Singlet Oxygen from Organic Pigments". (December 12, 2007)
- PhD in Chemical Sciences, University Ca' Foscari of Venice, Italy
  Dissertation title: "Advances in the Use of Nanoelectrode Ensembles in Analytical Chemistry and Molecular Diagnostics". (June 8, 2012)
- Visiting student at Fruk Group, Karlsruhe Institute of Technology (KIT) DFG-Centre for Functional Nanostructures, Karlsruhe (4 months)

Employment
Postdoc position at University Ca' Foscari of Venice, Italy. Cross-Border Cooperation Italy-Slovenia Programme 2007-2013 - Strategic Project TRANS2CARE (www.trans2care.eu).

Personal preferences
Acquisition of new knowledge and skills; working in a cross-cultural environment.

Values
Positively contribute to team objectives or perform independent work; personal, professional and economic satisfaction; strong and international collaborations; travel; enjoyable and creative environmen; communication and sharing of ideas; respect.

Limitations
Foreign languages.

>> my goals

Short Term
- **Work** – Research experience in a EU private/ public institution
- **Home** – Marriage

Mid Term (2-5 yrs)
- **Work** – Permanent position with the possibility of professional growth
- **Home** – Having children

Long Term >5yrs
- **Work** – Responsible for the research and development department of a company
- **Home** – Support family situation

Current competencies, skills, knowledge, experience
- Electroanalytical techniques accompanied with skills in other analytical methods, such as spectroscopy (UV-Vis, FTIR, FTIR-ATR), microscopy (SEM, AFM) and chromatography (FPLC, GC).
- Micro-nano fabrication methods for the preparation of ensembles of nanoelectrodes (NEEs) by chemical deposition of metals on porous materials, for the synthesis of nanoparticles, etc.
- Fabrication of electrochemical biosensors
- Conservation and restoration technologies for Cultural Heritage (practical experience in restoration and basic knowledge in the main diagnostic technologies for the study of artifacts) and practical experience in the production and detection of singlet oxygen from commercial fine art organic pigments (master's thesis).

Skills: chemistry, analytical chemistry, biosensors, electrochemistry, nanoparticles, nanomaterials, cultural heritage, team building, fundamentals of patent search analysis, technology transfer, fundamentals of economics: how to prepare, read and

understand an economic document, project management, scientific communication (e.g., dissemination of science to the general public; preparation of brochures, posters, leaflets, etc. for public release; organization of open events, workshops, lectures, etc. for general public; writing of non scientific articles; communication with MEDIA; web reports).

Development needs and skills required for current job and future goals

Extending my expertise in analytical/ electroanalytical techniques for molecular diagnostics, development of biosensing devices for biological/medical applications, technologies for micro-nano fabrication, with the final goal to produce results of high scientific relevance.

I am also interested in acquiring complementary skills related to research management, namely the ability to identify and secure possible sources of funding for individual and team research, and project management related to proposals, supervision, deadlines and delivery, negotiation with funders, financial planning.

Action Plan

Looking for research opportunities in public insitutions / private companies.

Communication and branding activities through national / international conferences, meetings, informatic platforms, etc.

>> FRANCESCA D'ESTE

Who am I?
I am target-focused, self-motivated and strongly determined, hard-working, with high personal standards, analytical, systematic, fast learner.

Education
- Masters – MSc Pharmaceutical Chemistry and Technology, University of Trieste
- PhD – Biomedical Sciences and Biotechnology, University of Udine
- National examination and Professional Qualification as Pharmacist

Employment
- Post-doc researcher (2008-2014), PhD student (2005-2008) – Dept. Medical and Biological Sciences, University of Udine
- Contract professor in Propedeutic Biochemistry, BSc program in Human Movement Sciences, University of Udine (2009-2010)

Personal preferences
To make use of my competences as part of a highly committed, cross-functional team, in a dynamic and stimulating environment with opportunities for professional growth.

Values
Intellectual challenge and innovation, exercise competence, learn new things, professional development, teamwork, work-life balance.

Limitations
At the moment looking for opportunities in Friuli Venezia Giulia region.

>> my goals

Short Term
- **Work** – Establishing partnerships with companies for my current research activities; improving my scientific profile

Mid Term (2-5 yrs)
- **Work** – Exploiting my hard and soft skills as part of a company

Long Term >5yrs
- **Work** – Develop into a senior/management position

Current competencies, skills, knowledge, experience
Scientific research; cell culture; cell biology, molecular biology and microbiology techniques; data analysis, statistical methods.

Basic knowledge in IP management, innovation and technology transfer, project management (financial reporting).

Organizational skills; written and oral scientific communication and dissemination skills; teaching skills.

Experience: functional characterization of antimicrobial peptides of the innate immune system as templates for the development of novel anti-infective agents.

Development needs and skills required for current job and future goals
Further hands-on experience in writing grant proposals and project management.

Expand knowledge and develop experience in IP management, product development processes and regulatory issues.

Action Plan
Finding collaborations with companies for current research project and exploring internships/stages opportunities.

Scientific publications.

Networking, exploring job opportunities (job and grant applications).

>> LUIGINA DE LEO

Who am I?
Medical biotechnologist, creative and curious, hard-working and determined. Able to enjoy working with others in team and to carry out a project research.

Education
- MSc - Medical Biotechnologies
- PhD – Maternal-Childish Medicine, growth and education podiatry (Faculty of Medicine, University of Trieste)

Employment
Post doc position at IRCCS Burlo Garofolo, Trieste, Italy. Cross-Border Cooperation Italy-Slovenia Programme 2007-2013 - Strategic Project TRANS2CARE (www.trans2care.eu).

Personal preferences
Being involved in an active group and in a cross-cultural environment with opportunities for professional growth.

Values
Performing independent work producing results to achieve team objectives; spreding scientific discoveries and results to scientific and no scientific audiences; optimism.

Limitations
International experience, foreign languages.

>> my goals

Short Term
- **Work** – Secure publications and next employment
- **Home** – Support family situation

Mid Term (2-5 yrs)
- **Work** – Gain permanent position in private or public institution
- **Home** – Support family situation

Long Term >5yrs
- **Work** – Work as responsible of a research group
- **Home** – Support family situation

Current competencies, skills, knowledge, experience
Cell biology, animal experimentation, immunohistochemestry, data collection, data analysis, publications.

Research, autoimmunity diseases.

Project management, team work, posters, scientific communications.

Development needs and skills required for current job and future goals
Extend my expertise in innovative techniques for advanced diagnostics.

Improve communication skills to enlarge network of contacts.

Gain knowledge related to research management and project management.

Action Plan
Look for research work opportunities in private or public institutions.

Improve my curriculum vitae with courses and master.

>> UROŠ RAJČEVIĆ

Who am I?
Analytical, driven, ambitious, perceptive, creative, enjoy working with numbers, inquisitive, systematic, disciplined.

Education
- Undergraduate – Veterinary Medicine
- Masters – Biochemistry and Molecular Biology
- PhD – Biochemistry and Molecular Biology
- DCO – Assistant Professor of Biotechnology

Employment
- 1999-2005 University of Ljubljana, Slovenia, Faculty of Medicine, Institute of Biochemistry
- 2002-2003 Institute of Molecular Medicine and Genetics (IMMAG), Medical College of Georgia, Augusta GA, USA
- 2002-2003 Veterans Affairs Hospital, Department of Pathology, Augusta GA, USA.
- 2005-2008 CRP-Santé, Department of Oncology, NorLux Neuro-Oncology laboratory, Luxembourg
- 2007 Oncoproteomics laboratory, Cancer Center Amsterdam, Vrije Universiteit Medical Center (VUMC), Amsterdam, Holland
- 2009-2011 National Institute of Biology, Dept. of genetic Toxicology and Cancer Biology & Dept. of Biotechnology and Systems Biology
- 2011 - Blood Transfusion Centre of Slovenia
- 2012 - University of Ljubljana, Slovenia, Faculty of Medicine, Institute of Pathology

Personal preferences
Being involved in a competitive environment with opportunities for performance.

Values
Positively contribute to team objectives or perform independent work; personal, professional and economic satisfaction; strong and international collaborations; travel; enjoyable and creative environmen; communication and sharing of ideas; respect.

>> my goals

Short Term
- **Work** – Secure a position with opportunity for progress

Mid Term (2-5 yrs)
- **Work** – Develop into a senior role

Long Term >5yrs
- **Work** – University or Industrial R&D

Current competencies, skills, knowledge, experience
Gene expression analysis; Immune-assays; Protein expression systems (recombinant DNA) and analysis (proteomics), Applied histology, In vivo animal experiments, Mouse mAb production, Cell line models, Data processing, Microscopy.

Development needs and skills required for current job and future goals
Industrial R&D, Teaching, Computational Biology.

Programming.

Action Plan
Develop plan to utilize experience as an opportunity to experience and demonstrate ability to potential future employers.

>> FRANJA ŠULEK

Who am I?
Open-minded, enthusiastic, determined with target-oriented personal attitude, curious, adaptable, communicative, instructive, loyal.

Education
- BSc in Biochemical Engineering, University of Maribor, Slovenia (y. 2001-2006)
- BSc internship in Protein engineering, University of Insubria, Italy (y. 2006)
- PhD in Biochemical Engineering, University of Maribor, Slovenia (y. 2006-2011)
- PhD internship in Enzyme technology, Delft University of Technology, Netherlands (y. 2008)

Employment
- PhD student researcher at Faculty of Chemistry and Chemical Engineering, University of Maribor, 2006-2011
- Post-doc position at Valdoltra Orthopaedic Hospital, TRANS2CARE, 2011-2014

Personal preferences
Involvement in multi-competent working team dealing with international affairs or applicative research or strictly diplomacy projects issues (career in diplomatic services).

Values
Job satisfaction, loyal collaboration, effective communication.

Limitations
Having a few working experiences in the industrial research.
Sky is the limit.

>> my goals

Short Term
- **Work** – ind employment in public or private sector that engages creativity, dynamicity and stability (consistency); preferentially, to work with people

Mid Term (2-5 yrs)
- **Work** – Build up a firm or to work on international level (emphasis on international communication/correspondence)

Long Term >5yrs
- **Work** – Secure work position in a diplomatic institution

Current competencies, skills, knowledge, experience
Bioprocesses (computer-aided simulations), nanotechnology, magnetic nanoparticles, enzyme technology, biomedical materials, project administration and management, linguistic skills (communicative abilities) – public presentations and communication with media, work in professional panels, organizational skills, editorship.

Development needs and skills required for current job and future goals
Improve knowledge (basic and technical) in biomedical materials.

Continue education in project and communication management (soft skills development).

Start learning other diplomatic languages (German and French) on working level.

Learn about EU institutions functioning.

Action Plan
Exploring job opportunities in academia/ industry/diplomatic societies.
Actively involved in national/international professional and review panels.
Do the national exam in General Administrative Procedure Act.

>> ANA PETELIN

Who am I?
Analytical, ambitious, perceptive, precise, inquisitive, systematic, disciplined.

Education
- PhD – Nanosciences and Nanotechnologies (Jožef Stefan International Postgraduate School)
- Bachelor's Degree – Chemistry (Faculty of Chemistry and Chemical Technology, University of Ljubljana)

Employment
- PhD student at Jožef Stefan Institute, Department of Biochemistry, Molecular and Structural Biology (2003-2011)
- Post-doc position at University of Primorska, Faculty of Health Sciences - Trans2care project (2011-2014)

Personal preferences
Being involved in an intellectually stimulating environment to acquire new knowledge.

Values
Problem-solving attitude, teamwork, flexibility, challenge.

Limitations
Lack of experience in preparing and applying for grant proposals and having no desire to work outside Europen region.

>> my goals

Short Term
- **Work** – To achieve all objectives and to successfully finish the Trans2Care project and to secure my next employment
- **Home** – To support my family

Mid Term (2-5 yrs)
- **Work** – To become an assistant professor and to engage research in the field of nutrition and health
- **Home** – To support my family

Long Term >5yrs
- **Work** – To obtain a permanent position
- **Home** – To travel and to support my family

Current competencies, skills, knowledge, experience
Molecular and cell biology, cell cultures, apoptosis, nutrition, nutrigenomics, project management skills (financial reporting), dissemination skills, organisational skills, translation (English to Slovenian), technology auditing.

Development needs and skills required for current job and future goals
To gain more experiences in the field of nutrition and nutritional counselling and to obtain more experience and knowledge on how to successfully submit a grant proposals, and to improve knowledge in the field of project management.

Action Plan
Looking for exploring job opportunities (new collaborations), to apply for European grants and to publish scientific papers.

WP5 - MAPPING AND ROAD-MAPPING

The goal of Trans2Care was to carry out a detailed study within the academic institutions, hospitals and healthcare facilities, and industrial companies within the Programme Area on the respective results in science and technology. The data collected were expected to allow drafting of a Strategic agenda for biomedical research, focused on the following priorities:

a) The identification of the scientific expertise readily available to meet unresolved health and medical problems;

b) The acceleration of the conversion of these skills into products and services to be brought to the market;

c) The identification of the areas of biomedical research that virtuously place the multidisciplinary expertise of all the Partners in the project at the disposal of the system, with the ability to expand the Partnership to include other participants with different skills.

WP 5.1 MAPPING

Two main survey activities have been done, i.e. one aimed at characterising the extent to which research results are used, valorised and transferred to end-users (mainly industries), and one aimed at examining the Technology Readiness Levels of the research results obtained in the community of cross-border biomedical research institutions.

1 - Survey on Utilisation and Valorisation of Knowledge

A detailed analysis of on-going research results obtained within the Programme Area's research and health institutions has been performed, to see whether the results are used by the public health system to improve prevention, diagnosis and treatment services.

The analysis has been assigned to an expert, Dr. Luca Escoffier, who has sent a detailed questionnaire to a list of subjects inside the Program Area.

The questionnaire asked to specify what are the resources in terms of knowledge and activities in terms of actions aimed at enhancing knowledge and its monetization. It is in facts important that those who work in various capacities in the field of research, basic and industrial in the healthcare field, might be able to fully exploit the resources generated because they could make them available to the public and other actors in same or adjacent areas of science and/or technology.

The output of this study is a Report titled "THE VALUE OF BIOMEDICAL RESEARCH WITHIN THE TRANS2CARE NETWORK, AND RECOMMENDATIONS FOR THE CREATION OF TOOLS TO PROMOTE AN EFFECTIVE TRANSFER AND EXPLOITATION OF KNOWLEDGE".

It has been published in the book "Cross-border Italy-Slovenia Biomedical Research: arewe ready for Horizon 2020? Conference proceedings". ISBN 978-88-8303-572-2 .

A prominent feature of this study is well described in one of the first paragraphs of the report:

"At this point it is necessary to highlight that unfortunately there is a caveat, in fact, the response to the questionnaire was unsatisfactory, which caused us not to be able to collect sufficient data for statistical purposes, but at the same time it made possible to confirm the hypothesis from which the work originated, that is, that there is indeed a divide between research and its exploitation, and between industry and the themes linked to academia and research. To understand how pervasive this problem is, it should be enough to mention that at the end of the data collection phase for the preparation of the present report, there have been several difficulties in obtaining fully completed questionnaires by the project partners, in fact, even among those which have been submitted, some are incomplete."

Thus, to complement the survey's results, at least as far as the academic world is concerned, some of the findings contained in the latest report (published in 2014) released by the Italian association for the valorisation of research results, NETVAL (http://www.netval.it/), were used.

The conclusions of this report are: *"… in the process related to the use, management and monetization of knowledge there is indeed room for improvement, especially if we compare the European experience, in terms of open innovation, with the North American one."*

A strong emphasis is given on the opportunities offered by open innovation, i.e. an approach by which new solutions should be either searched or offered at the global, rather than local or regional, level. Thus, if users of research results cannot be easily found in the Programme Area, they might be identified anywhere at the global level. Vice versa, if solutions are not available at the local level, these might be found elsewhere. The means for searching-and-finding are websites that offer repositories of information.

2 - Survey on the Technology Readiness Levels of cross-border biomedical research

The Cross-border Cooperation Programme Italy-Slovenia 2007-2013 has approved 6 projects focussing on Research & Innovation in the biomedical field, involving 44 different partners. The whole investment totalled 8.48 MLN €, amounting to 6% of the entire Programme budget (137,6 MLN €) or 23% of the budget assigned to the Programme priority 2 - Competitiveness and knowledge-based society.

FACT SHEET

The six biomedical research projects of the Cross-Border Cooperation Programme Italy-Slovenia 2007-2013

PROJECT	CALL	DURATION	LEAD PARTNER & COORDINATOR	N OF PARTNERS	BUDGET (€)
TRANS2CARE	01/2009	Apr 2011 Sep 2014	Università degli Studi di Trieste *Sabina Passamonti* www.trans2care.eu	13	*2.611.118*
PANGEA	02/2009	Oct 2011 Sep 2014	ZRS – Znanstveno raziskovalno središče - Univerza na Primorskem *Rado Pišot* www.pangeaeu.org	9	*1.253.752*
GLIOMA	02/2009	Nov 2011 Oct 2014	Morska biološka postaja Nacionalni inštitut za biologijo *Tamara Lah Turnšek* www.glioma.eu	5	*1.320.000*
SIGN	02/2009	Nov 2011 Oct 2014	Univerzitetni klinični center Ljubljana *Borut Peterlin* www.signgenetics.eu	8	*1.285.441*
MINA	03/2011	Oct 2012 Mar 2015	SISSA - Scuola Internazionale Superiore di Studi Avanzati *Stefano Gustincich* www.minaproject.eu	4	*998.293*
PROTEO	03/2011	Oct 2012 Apr 2015	Elettra - Sincrotrone Trieste S.C.p.A. *Paola Storici* www.elettra.eu/Prj/PROTEO/	5	*992.771*
			TOT	**44**	***8.461.315***

We asked these questions:

- What are the results of this investment?
- Will new scientific knowledge produce any technological innovation?
- Is there any benefit for our quality of life and health?

Leveraging on the sense of community that is pervasive among the beneficiaries of the Cross-border Cooperation Programme Italy-Slovenia 2007-2013, we have organised the CROSS-BORDER ITALY-SLOVENIA BIOMEDICAL RESEARCH CONFERENCE at the University of Trieste on 27.02.2014, included among the Capitalisation events of the Programme (http://www.ita-slo.eu/capitalizzazione_risultati/2014021308555819/).

The Conference concept embedded various elements of social innovation, regarded as essential to easily assess the degrees of technological innovation of research results:

- Strong investment in information and communication technologies and approaches;
- Adoption of the Technology Readiness Levels scale and its promotion among the attendees;
- Engagement of Trans2Care researchers in the assessment process;
- Dissemination of the assessment results with a powerpoint presentation FACTS, FIGURES AND FEATURES posted in Slideshare (http://www.slideshare.net/trans2care/facts-figures-and-features-conference-report-a-feedback-conference-crossborder-italyslovenia-biomedical-research-are-we-ready-for-horizon-2020), which caught more than 1100 views in 10 months.

The prominent outcome of the Technology Readiness Levels assessment of 65 posters displaying research results is their prevailing embryonic state (i.e. TRL 3, see Fig. 6), with respect to utilisation capacity.

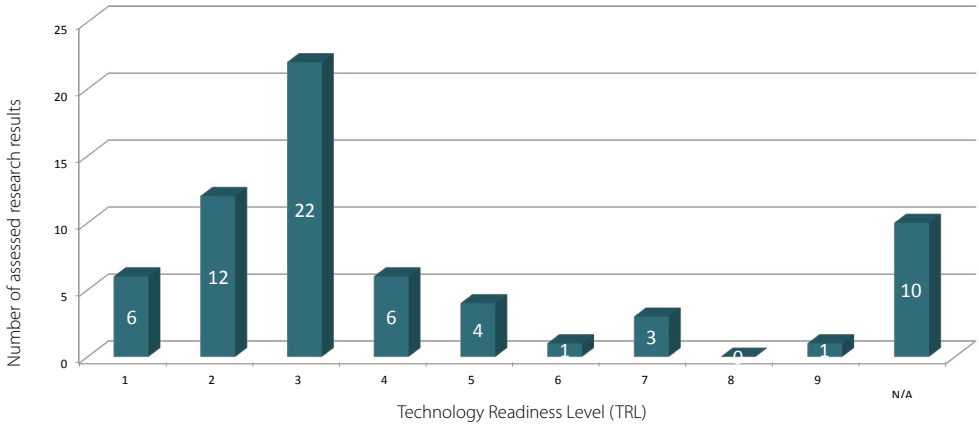


Figure 6 - TRL assessment of cross-border bomedical research results. A collection of 65 posters displaying research results was analysed and ranked according to the guidelines published on Trans2care website.

This analysis offers a well-defined photograph of the gap dividing research from industry and even non-profit entities like hospitals and healthcare services. These technology-users might find these results as useless, for the purpose of enhancing their performance and competitiveness.

WP 5.2 ROAD-MAPPING

Based on the results obtained by our mapping activities, a strategic agenda has been drafted, keeping in mind that Trans2care project was culminating at the onset of the European 2014-2020 programming period and the definition of the regional Smart Specialisation Strategies, as ex-ante conditionality for the use of European Structural and Investment Funds.

Our strategic agenda has therefore been written as a position paper, titled "THE SYSTEM OF ITALIAN - SLOVENIAN CROSS-BORDER BIOMEDICAL RESEARCH: A STRATEGIC ELEMENT OF SMART SPECIALISATION FOR THE COHESION POLICY 2014 – 2020", delivered to a number of local academic and public authorities and published in the book "Cross-border Italy-Slovenia Biomedical Research: arewe ready for Horizon 2020? Conference proceedings". ISBN 978-88-8303-572-2 .

A prominent feature of this position paper is that it starts from the evidence that the cross-border Area, and the Friuli Venezia Giulia Region in particular, hosts many research institutions where highly skilled workers are active (ca. 8500 only in Friuli Venezia Giulia: http://www.regione.fvg.it/rafvg/cms/RAFVG/formazione-lavoro/dati-analisi-mercato-lavoro/FOGLIA51/).

The need is to close the distance between them and the industry. What is the solution suggested? It is to leverage on this high level ("smart") workforce to attract the interest (not just curiosity) of big biomedical industrial players.

To this purpose, a concerted effort must be done to:

Suggested road map

1. ***Improve the quality of research products (excellence)***
2. ***Train young researchers in those skills that are most searched by business, i.e. a mix of hard (scientific/technological) and soft skills (adaptability, team working, creativity, accountability, etc.).***
3. ***Develop ICT tools to ease access to and exchange of research results and industry needs of knowledge (open innovation model).***
4. ***Embed social innovation in the strategy to promote technological innovation.***

Figure 7 - The cover of the second book of Trans2Care

WP 5.3 THEMATIC WORKING GROUPS

The last part of this large workpackage was the setting of thematic working groups, to share the project's tasks. Instead of forming thematic working groups, in which the TransCare staff members (both senior and junior) would have narrowed their horizons through scientific and technological specialisations, it was agreed to form INNOVATION WORKING GROUPS. So, in our project we developed a small innovation ecosystem, as is evident from the description below (Table 5).

Table 5 - The six working groups of Trans2Care, forming an internal innovation ecosystem.

	TARGET STAKEHOLDERS	*WORKING GOALS*
Working Group 1 INDUSTRY	research departments business&management units	tech-transfer social networking (contact exchange between industry and academics) technological audits search for strategic projects (industry out-sourcing) - for T2C partners transfer of "know-how" between industry and research institutes
Working Group 2 CLINICS	patients research-academics personnel employed personnel (doctors, nurses)	dissemination of knowledge to doctors, nurses and patients identify clinical problems related to health-care service bridge basic research and clinical research
Working Group 3 ACADEMICS	basic science units pre-clinical departments	growth of the network: new scientific collaborations outside the network exchange of contacts for academic partners grant screening/monitoring the open calls online identifying and notifying suitable T2C partners to apply for a grant
Working Group 4 MEDIA	TV, radio, newspapers websites, web portals	dissemination of cutting-edge T2C partners research to media preparing and selling "pop-science" summaries to media -> public T2C advertising of research, work, network, and events
Working Group 5 GENERAL PUBLIC	healthy population patients	dissemination of science to general public preparing brochures, posters, leaflets,etc. for public to advertise T2C research to general public organization of open events, lectures, etc. for general public
Working Group 6 STRATEGIC COORDINATION	Public administration in Italy/ Slovenia Managing authority local, national, EU governmental offices Managing autorithy, Joint technical secretariat, First level control Funding bodies Biomedical industries support	Representation and defense of T2C interests (lobbying) Reporting Submitting grant proposals establishing industry-academia/hospitals partnerships

WP5 - MAPPING AND ROAD-MAPPING

Lesson learned

By implementing the activities planned in this work package, the most impressive landscape has been the fragmentation of researchers, acting in isolation and without a common target on which to converge.

Thus, resources are not fully exploited. The human capital is limitedly deployed and cannot find opportunities to further develop. The research output is good or very good, though it might be far better if there were more inter-disciplinary collaborations.

A widespread spirit of internal competition and caution maintains the researchers community in an essentially frozen state.

This situation will not change before a deep awareness about the need to invest in fair research leadership will make its way.

Another limit is the inadequate transfer of knowledge towards the industry, including sharing of objectives and co-production of research projects and results. The supporting structures, like the Industrial Liaison Offices, or the Technology Transfer Offices, are not yet routinely involved in research projects, so an incalculable amount of data is published before being exploited and protected.

In front of this scenario, the entire system of the public research should be restructured, by seeding the culture and methodology of innovation in academic environments.

How to transfer the knowledge and skills from the laboratories to the companies?

WP6 - TECHNOLOGY TRANSFER

WP 6.1 TECHNOLOGY AUDITS

In order to establish technology transfer actions, the network has organized a campaign of Technology Audits involving Trans2Care partners and biomedical companies, laboratories and hospitals operating in the Programme area.

Technology Audits enable to understand development needs of industries and other organisations, so to design plans for collaborations based on the exploitation or the scientific and technological assets of Trans2care network.

WP 6.1 TECHNOLOGY AUDITS

Technological audits. What is this?

1. Looking for industries or other bodies.
2. Doing some intelligence.
3. Calling the responsible person in R&D department.
4. Explaining what is Trans2Care project and objectives.
5. Asking for an appointment.
6. Meeting the responsible person and doing an interview.
7. Understanding the technological needs of the beneficiary and suggesting solutions.
8. Writing a report and sharing it with the beneficiary.
9. Keeping a list of audits

Trans2Care researchers have been directly involved in these activities, under the supervision of their team managers and the guidance of PP5 (Treviso Tecnologia, then changed to t2i-Trasferimento tecnologico e innovazione).

The target was to carry out at least 50 technological audits.

To prepare Trans2Care Partners to this activity, PP5 invited two experts to a course entitled "How to get the most from a technology audit", on 18-19.02.2013. A further practical trainng session was organised on 20.03.2013, in which Trans2Care researchers carried out internal audits.

As a result, researchers have been able to independently carry out 52 audits for different innovation actors. The list is in Table 7.

Beneficiaries of technological audits

The majority of the technology audits were done in private business. Other beneficiaries were hospitals or healthcare institutions and associations.

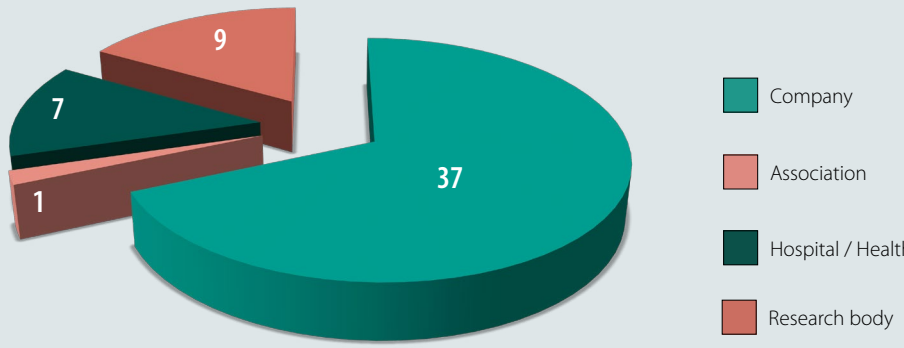


Figure 8 - Overview on the audit beneficiaries, classified by main business category.

Table 6 - List of the technology audits.

	COMPANY	DESCRIPTION	REFERENCE PERSON	CONTACTS
1	**SLOADO**	Slovenian Anti-Doping Organization, responsible for the fight against doping in Slovenia	*Janko Dvorsak*	www: www.sloado.si;Tel.: +386 1 230 60 10
2	**BIOBANKA**	Biobanka is a bio-tech company, which is officially licensed by the Agency for Medicinal Products and Medical Devices of Slovenia for the collection and storage of cord blood from newborn infants. Blood banking and cord blood storage - their job is to handle the collection, shipping, categorization and cryostorage.		
3	**Zdravstveni dom Sežana (Health Care Center Sežana)**	community primary care health center covering following clinical and emergency services, very active in the field of preventive medicine and volunteering activities	*Director Ljubislava Škibin dr.med.spec.*	Zdravstveni dom Sežana, Partizanska cesta 24, 6210 Sežana, tel.:05 73 11 400.
4	**Zavod za zdravstveno varstvo Nova Gorica (ZZV NG) / Institute for health protection of Nova Gorica**	Public institute for monitoring, reducing, making directions and action plans for improving harmful medical, ecological, sociological effects to keep health of people.	*dr. Marko Vudrag marko.vudrag@zzv-go.si*	Vipavska cesta 13, Rožna Dolina, 5000 Nova Gorica Tel. +386(0)5 330 86 00
5	**Bolnišnica Topolšica / Hospital Topolšica Biokemični laboratorij / Biochemical laboratory**	Diagnostic biochemical laboratory in public hospital, which is specialized for secondary treatment level in general internal medicine, pulmonary diseases and tuberculosis.	*Eva Lozič - principal analyst (eva.lozic@b-topolsica.si)*	Bolnišnica Topolšica / Hospital Topolšica Biokemi?ni laboratorij / Biochemical Laboratory Topolšica 61, SI-3326 Topolšica, Slovenija T: 03 898 77 55 info@b-topolsica.si www.boltop.si
6	**Cosylab Ltd., Control System Laboratory**	Private company (SME), profit driven, customer oriented offering a wide range of system integration services and control (sub)system solutions.	*Bojan Vrtič*	Cosylab d. d., Control System Laboratory Teslova Ulica 30, SI-1000 Ljubljana, Slovenia
7	**Inštitut za mikrobiološke znanosti in tehnologije / Institute for Microbial Sciences and Technologies**	Not-for-profit private research institute (formally small/medium enterprise) focused on basic scientific research or applicative solutions in microbiology, molecular biology, metagenomics and nanobiotechnology.	*Blaž Petrič - CEO (blaz.petric@imst.si) dr. Aleš Lapanje - head of research (ales.lapanje@imst.si) dr. Tomaž Rijavec – researcher (tomaz.rijavec@imst.si)*	Aškerčeva ulica 59, SI-1230 Domžale, Slovenija T: 05 909 80 50 info@imst.si www.imst.si
8	**Lodis Ltd. / iDiagnostic**	Lodis Ltd. is small/medium enterprise representing functional personalized diagnostics. iDiagnostic is their own developed brand offering costumers selftest disease devices.	*Blaž Petrič - CEO (blaz@idiagnostic.si)*	Aškerčeva ulica 59, SI-1230 Domžale, Slovenija T: 05 909 80 53 info@idiagnostic.si www.idiagnostic.si / www.idiagnostic.si/trgovina
9	**Acies Bio Ltd.**	Private small/medium biotechnology enterprise offering state-of-the-art R&D services in microbial biotechnology, fermentation and synthetic chemistry, analytics and downstream process development.		

	COMPANY	DESCRIPTION	REFERENCE PERSON	CONTACTS
10	**Italfarmaco S.p.a.**	Pharmaceutical company since 1938; main site in Milan; many subsidiaries all over the world; 2000 employees; 500 million euro revenues.	*Dott. P. Mascagni*	Viale Fulvio Testi 330, Milano
11	**Nealys Srl**	Startup company since 2010 in Trieste; 6 employees; develops functional biopolymers and new human diagnostic procedures.	*Erminio Murano, Medical Director*	BIC Incubator FVG, via Flavia 23/1, Trieste
12	**IGA Technology Services Srl**	Small and medium-size enterprise (SME) in Udine employing 12 persons. Provider of Next Generation Sequencing services.	*Federica Cattonaro, CEO*	Via J.Linussio, 51 Z.I.U. Udine 33100 Italy
13	**Cobik**	Centre of exelence: The Bioinstrumentation Laboratory is the fifth COBIK laboratory, working in bioanalytics. The core technology is based on synthetic biomimetic ligands called aptamers. Aptamers are short, single-strand DNA and RNA molecules that have the ability to selectively bind with adaptive conformation to selected target molecules with a high affinity. Aptamers are produced under in vitro conditions with a combinatorial chemistry process known as Systematic Evolution of Ligands with Exponential Enrichment (SELEX) – their expertise.	*dr. Jan Mavri, jan. mavri@cobik.si*	Center odličnosti za biosenzoriko, instrumentacijo in procesno kontrolo, Velika pot 22, SI-5250 Solkan, info@cobik.si
14	**Editor d.o.o.**	Editor was established in 2001 as a privately owned company focusing on emerging cutting edge Internet technologies. Today it has got a team of 15 experts in the field of web design, programming, application development and marketing, to help you achieve and exceed set targets for your online presence.	*Tomas Jug*	Editor d.o.o. Velika pot 29 5250 Solkan, Slovenia www.editor.si / info@ editor.si
15	**Bia Separations d.o.o.**	"BIA Separations is the only worldwide manufacturer of Short Monolithic Chromatographic Columns optimized to meet the research and production needs of the biotechnology industry. The company is headquartered in Villach, Austria and currently has three subsidiaries: Slovenian subsidiary, located in Ajdovščina, consists of Research & Development (Production facilities and sales offices located in US and China).	*Uhr Cernigoj*	Mirce 21, 5270 Ajdovščina, Slovenia
16	**Parsek d.o.o.**	Based on more than 10 years of experience, BIA Separations has developed a wide range of CIM Convective Interaction Media® that address the growing need for timesaving innovations in therapeutic biomolecule purification. Parsek has been providing professional information technology solutions and digital communications in the region since 1999. The company has developed a unique set of specialized industry related IT solutions. Relation to Trans2Care: Parsek is providing platform for Healthcare Information Exchange (HIE) which the core business in healthcare industry. HIEs are systems allowing institutions to exchange medical data to support key clinical processes.	*Peter Mihlej*	Cesta v Gorice 8, 1000 Ljubljana, Slovenia
17	**Smart Com d.o.o.**	Smart Com (located in Ljubljana) develops software and also hardware solutions for the market and for internal use. The company features strong links with various types of end user organizations, e.g. electric utilities, telecoms, governmental organisations, municipalities, health institutions, civil protection, etc. Main R&D areas of competence and interest: - Smart Grids, - ICT for energy efficiency - ICT for eHealth and integrated care, active and healthy ageing - ICT for eHealth and integrated care, active and healthy ageing - Future Internet - Internet of Things (IoT), platforms for connected objects - Big Data, data management, analytics and visualisation - Cloud based services - Digital Security	*Igor Kosir*	SMART COM d.o.o. Brnčičeva ulica 45, 1231 Ljubljana-Črnuče Slovenia

	COMPANY	DESCRIPTION	REFERENCE PERSON	CONTACTS
18	**Fin-Ceramica Faenza S.p.A.**	Ceramic biomedical inplants. The company technology platform is a tangible answer to everyday needs that may occur in Orthopedic, Neuro and Maxillo-Facial surgery.	*Claudia Fabbi, Researcher R&D, claudia.fabbi@finceramica.it*	Via Ravegnana 186 48018 Faenza (RA), Italy
19	**Istituto Auxologico Italiano**	Private law foundation. Research on Metabolic (obesity, diabetes, osteoporosis), neuro and cardiovascular diseases.	*Dr. Davide Gentilini email: gentilini.davide@gmail.com*	Laboratorio di Biologia Molecolare e Genetica Medica Tel. +3902619113039 Fax. +3902619113033
20	**KOS Genetics srl**	Data analysis services. Genotyping and Genome Wide analysis, Gene expression studies and trascriptomics, Sequencing, Biostatics and bioinformatics, Epigenetics, Pharmacogenomics and Pharmacogenetics.	*contact: dr. Erika Salvi email: salvi.erika@gmail.com*	Via Podgora, 7 - 20122 Milano (MI) - Italy tel: +39.02.56660130 www.kosgenetic.com
21	**Laboratorio Analisi Citotest, srl – Sezione di Genetica**	Genetics, Molecular Biology, pre- and post-natal diagnosys.	*Dr. Laura Cardarelli email: citotest@tiscali.it*	Sezione di Genetica Via della Provvidenza 202 Sarmeola di Rubano (Pd) Tel. / Fax. +39.049.635514
22	**Institute of Environmental Engineering, University of Zielona Gora**	Environmental sciences	*Dr Monika Suchowska-Kisielewicz*	Licealna 9, Zielona Góra, Polonia
23	**Deco Med srl**	Creation and production of an advanced instrument for the treatment of amblyopia: a ten-year success that launched the company into the medical field all over the world.	*Giovanni Bertoli*	Via delle Industrie 2/4 - 30020 Marcon (VE) info@decomed.it
24	**Jolly Sgambaro Spa**	Pasta	*MariaAntonietta Sgambaro*	Via Chioggia 11/A, 31030 Castello di Godego (TV)
25	**Mikropis Holding S.p.A.**	Software development.	*Alenka Ribic aalenka.ribic@gmail.com*	Aškerceva 4a, SI-3310 Žalec, Slovenia www.mikropis.si
26	**Institute of Public Health Nova Gorica**	Protection and promotion of health.	*doc. dr. Marko Vudrag (marko.vudrag@zzv-go.si)*	Vipavska cesta 13, Rožna Dolina SI-5000 Nova Gorica / www.zzv-go.si
27	**Agro-food laboratory, Agriculture and Forestry Institute Nova Gorica**	Analysis of food and feed, wine analysis and certification of wines.	*Dr. Tjaša Jug*	Agricultural and Forestry Institute Pri hrastu 18 SI-5000 Nova Gorica www.kmetijskizavod-ng.si
28	**Centre for Biomedical Sciences and Engineering, University of Nova Gorica**	Biomedical research.	*Ana Trošt*	Dvorec Lanthieri Glavni trg 8 SI-5271 Vipava www.ung.si/en/research/center E-mail: info.cbzi@ung.si
29	**Medipro, trženje in raziskave d.o.o.**	Medical products sales and distribution; marketing, promotion and research	*Matej Kmetic*	Tacenska cesta 137, SI-1000 Ljubljana, Slovenia www.medipro.si/

	COMPANY	DESCRIPTION	REFERENCE PERSON	CONTACTS
30	**Veneto Nanotech – NANOFAB**	Research centre on nanotechnologies founded with the primary goal of transfer technological innovation to the business world	*Diego Basset, Director of NANOFAB*	Parco Scientifico e Tecnologico Vega - Torre Hammon, Via delle Industrie, 5 30175 Venezia – Marghera
31	**Xeptagen SpA**	Creation of innovative tools that improve the diagnostic accuracy for cancer and the clinical management of cancer patients.	*Giorgio Fassina*	Parco Scientifico VEGA - Edificio Auriga Via delle Industrie, 9 - 30175 Marghera (VE) - ITALY
32	**De'Longhi S.p.A.**	"world-leading manufacturer of electric household appliances	*Dr. Alessandro Benedetti; Ing. Gianpaolo Trevisan*	Via L. Seitz 47 - 31100 Treviso
33	**Novamont S.p.A.**	medium-sized company in the chemical sector, international leader in the development of materials from renewable resources	*Dr. Elisabetta Fanesi, Dr. Roberto Ponti, Dr. Manuela Impallari*	Via G. Fauser 8, 28100 Novara
34	**Microbiology Unit - Azienda Ospedaliero-Universitaria (University Hospital) "Santa Maria della Misericordia" – Udine**	hospital division, provides diagnostic microbiology services for hospital inpatients and outpatients	*Dr. Alessandra Arzese*	Piazzale Santa Maria della Misericordia 15 – 33100 Udine
35	**GeniusChoice s.r.l.**	innovative, recently-founded startup that develops software applications for people affected by food allergies/intolerances or subjected to dietary restrictions	*Dr. Elisa D'Este*	AREA Science Park-Padriciano 99 - 34149 Trieste
36	**Bios Line S.p.A.**	one of the leading italian companies in the field of nutritional supplements and natural cosmetics based on herbal ingredients	*Dr. Paolo Tramonti, Dr. Cristiano Meggiato*	Viale Finlandia, 4 - 35020 Ponte San Nicolò (PD)
37	**Kinesis s.r.l.**	private ambulatory care polyclinic, mainly specialized in orthopaedics, physical and rehabilitation medicine, physiotherapy and functional re-education	*Dr. Davide Tietto*	via Battaglia 71/B - 35020 Albignasego (PD)
38	**VivaBioCell S.p.A.**	biotech company pursuing the discovery and development of therapies utilizing stem cell and tissue engineering for regenerative medicine	*Dr. Antonio Sfiligoj*	via del Cotonificio, 127 - 33100 Udine
39	**Lima Corporate S.p.A.**	Italian multinational in orthopaedics and traumatology, global provider of medical device reconstructive orthopaedic solutions	*Ing.. Paolo Dalla Pria, Ing. Alessandro Facchini, Dr. Francesco Segatti*	Via Nazionale 52, 33038 Villanova di San Daniele del Friuli (Udine)
40	**University medical Center (UMC) Maribor**	A general paediatric gastro-intestinal unit and a referral centre for celiac disease and other enteropathies, inflammatory bowel diseases	*Dolinsek Jernej*	Ljubljanska ulica 5 - 2000 Maribor
41	**Eurospital S.p.A.**	Company offering products for diagnosis of celiac disease, inflammatory bowel disorders and invasive bacterial infections	*Bravi Enzo*	via Flavia 122 - 34147 Trieste
42	**BioSistemika**	IT-BioTech Company, spin off from National Institute of Biology in Ljubljana, Slovenia. Offers complete quality solutions in the form of their own easy to use innovative hardware and software programs, advanced high-level education workshops, ISO-certified validation of protocols and consulting. BioSistemika co-founded Simbilab Ltd., company devoted to developing hardware solutions for molecular biology laboratories.	*Klemen Zupančič, CEO; klemen.zupancic@ gmail.com;*	Tehnološki park 24, SI-1000 Ljubljana, Slovenia;

	COMPANY	DESCRIPTION	REFERENCE PERSON	CONTACTS
43	**Dipros d. o. o., Ltd**	Activities of Dipros, Ltd cover the marketing of medical device and consumables for the purpose of laboratory and clinical diagnostics. They are covering both human and veterinary diagnostics.	*Miha Melinec*	Jernejeva ul. 3, 4000 Kranj
44	**EDUCELL D.O.O. - Prevale 9, 1236 Trzin (Slovenia), managing director: dr. Miomir Knežević**	Biotech company dealing with products and services in the field of regenerative medicine, tissue and cartilage repair.	*DOC. DR. MIOMIR KNEŽEVIĆ*	PREVALE 9, SI-1236 TRZIN
45	**Institute of Public Health - Special Unit (ZZV Koper) - Verdijev ul. 11, 6000 Koper (Slovenia), managing director, Milan Krek, MD.**	ZZV Special unit specialized for medical microbiology, microbiological tests, diagnosis of bacterial infection, human liquids, hospital hygiene (consultancy), sanitary medicine.	*DR. MARTINA KAVČIČ MARTINA.KAVCIC@ zzv-kp.si*	VOJKOVO NABREŽJE 4A, SI-6000 KOPER
46	**Mark Medical d.o.o., Partizanska c. 109, 6210 Sežana (Slovenia) - Slovenian headquarter**	The company is specialized in marketing, promotion, distribution, healthcare solutions and products, medical devices (orthopaedics), pharmaceutical goods.	*RADOVAN.MARCAN@ MARK-MEDICAL.COM*	PARTIZANSKA CESTA 109, SI-6210 SEŽANA
47	**University Rehabilitation Institute SOČA Republic of Slovenia, URI-SOČA, Linhartova 51, 1000 Ljubljana (Slovenia), Research director: Zlatko Matjačič, PhD**	Medical and occupational rehabilitation research centre, prosthetics and orthotics, science and research, kinesiological diagnostics, rehabilitation devices.	*PRIM. DR. MIRAN GREGORIČ mrgregoric@gmail.com*	LINHARTOVA 51, SI-1000 LJUBLJANA
48	**Lima Corporate S.p.A., Villanova di S. Daniele, Udine, together with PP8**	Italian multinational in orthopaedics and traumatology, global provider of medical device reconstructive orthopaedic solutions.	*PETRA FLISEK (FLISEKP@ SIOL.NET)*	Simona Jenka 9, SI-1230 Domžale
49	**AciesBio d.o.o., tehnološki park 21, 1000 Ljubljana, Slovenija; together with PP1**	Small to medium biotech company specialized in the design and production of improved microbial strains.		
50	**DEPARTMENT OF THE EXPERIMENTAL ONCOLOGY, INSTITUTE OF ONCOLOGY**	The department develops new therapeutic modalities for the treatment of cancer, test them on cell cultures, and perform preclinical studies.	*prof. dr. Gregor Serša*	Zaloška cesta 2 , SI - 1000 Ljubljana
51	**The Department of the Biochemistry and Molecular and Structural Biology, Jožef Stefan Institute**	The department is focused on protease research, molecules which play key roles in a number of cellular processes."	*prof. dr. Boris Turk*	Jamova 39, SI-1000 Ljubljana
52	**The Centre of Excellence for Integrated Approaches in Chemistry and Biology of Proteins**	A non-profit research institution that links knowledge, experience and technology of the top Slovenian research groups involved in biomedicine and biotechnology.	*prof. dr. Boris Turk*	Jamova 39, SI-1000 Ljubljana

The management of the technology audits was done by Giorgia Favaro, under the supervision of Franca Bandiera, Project Partner 5 (t2i).

WP 6.2 TECHNOLOGY SOLUTIONS

"Cross Border Technological Marketplace" Portal with the database of innovative solutions

The researchers prepared a detailed description of the technologies and possible applications that they developed during the project. Their presentation is published in the project's website

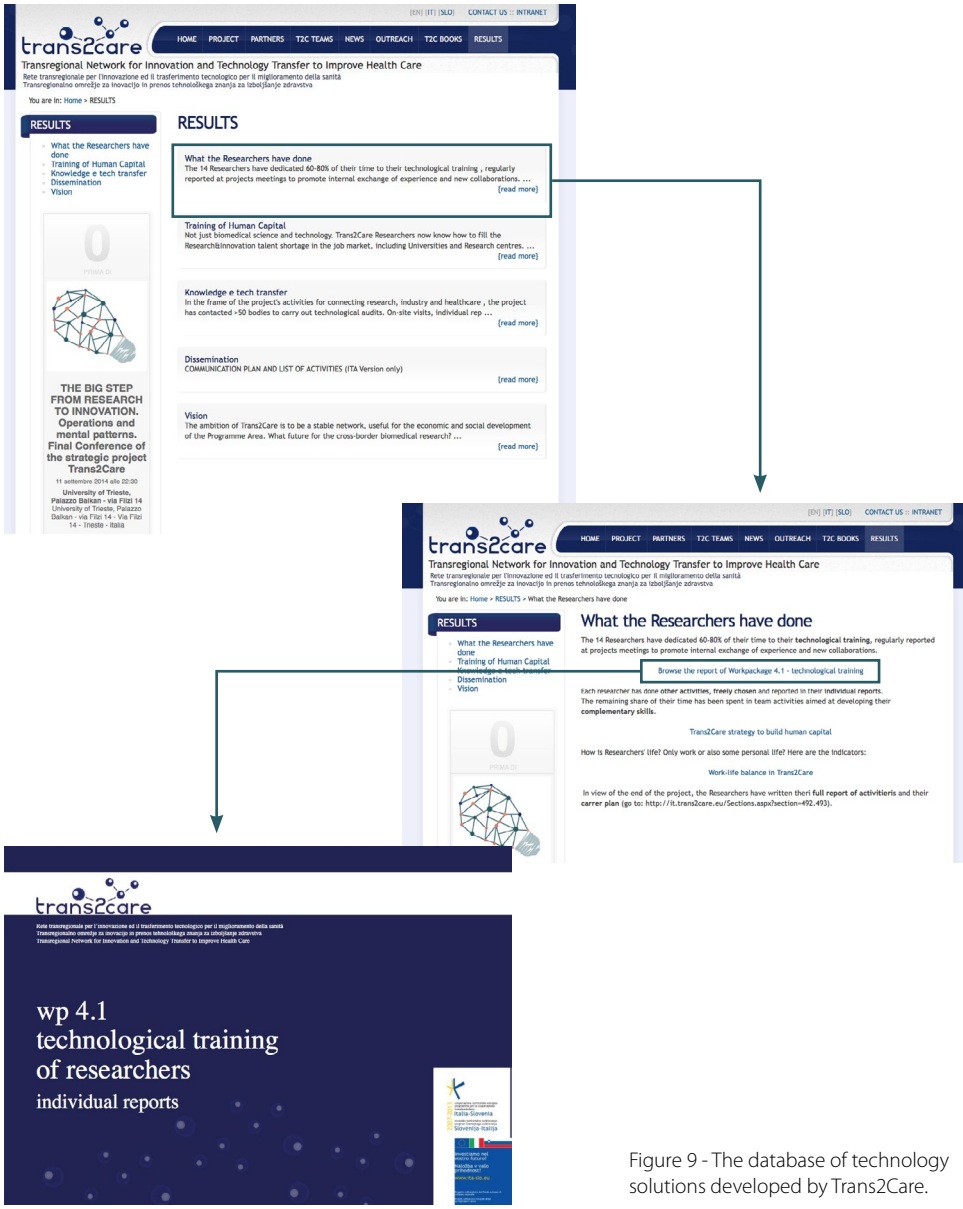


Figure 9 - The database of technology solutions developed by Trans2Care.

WP 6.3 TARGETED MEETINGS WITH INDUSTRIES

Trans2Care Partners have met various organisations, in a series of 14 meetings with industries, industry associations and other stakeholders.

It has participated to 4 brockerage events, of which 3 have been organised by Enterprise Europe Network, branches of Trieste, Ljubljana and Rijeka. The last one was attended in the frame of the Trans2Care enlargement strategy (see workpackage 7).

Trans2Care has also organised six targeted meetings behind closed doors and three events open to a specialised audience of stakeholders. On these last occasions, the experience gained by the project's Partners was transferred, in view of the definition of the Research and Innovation Smart Specialisation Strategy of Regione Friuli Venezia Giulia. In facts, developing synergies between research and economic actors requires a specific approach, which neither research organisations nor SMEs or other public firms have ready.

Focus meetings with industries

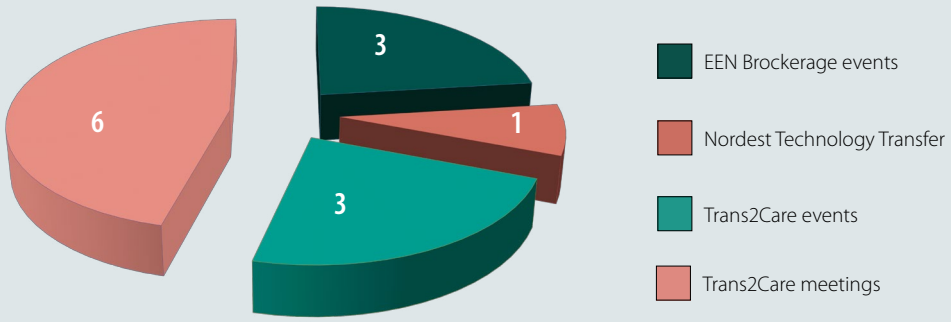


Figure 10 - Overview on the focus meetings with industries, classified by event category.

Table 7 - List of the focus meetings

Event	Where	When	Web	Notes	Promoter
Food&Nutrition tech dating	Trieste, Italy	28.09.2012	www.b2match.eu/next2012/participants/50	Event during TriesteNext 2012 (www.triestenext.it/progetti/food-amp-nutrition-technology-dating/)	LP
Nordest technology transfer	Trieste, Italy	28.09.2012	www.triestenext.it/progetti/nordest-technology-transfer/	Event during TriesteNext 2012 (www.triestenext.it/progetti/nordest-technology-transfer/)	LP
Biomech 2012	Rijeka, Croatia	07.12.2012	biomech.talkb2b.net/members/details/27/6	Event organised by STeP Ri (biomech.talkb2b.net/page/2/Programme)	LP
Innovation in the field of diagnostics for healthcare: is innovation worth for improving health care or is it only an additional cost?	Venezia, Italy	29.05.2013	/	Event during Trans2Care spring meeting 2013 (www.trans2care.eu/NewsData.aspx?IdNews=76&ViewType=Actual&IdType=390)	PP7
Brockerage event at Biomedica 2013	Aachen, Germany	19.06.2013	www.b2match.eu/biomedica2013/participants/34	Event during Biomedica 2013 (www.b2match.eu/biomedica2013/pages/home)	PP1
Meeting at Lima Corporate	San Daniele (Udine), Italy	25.11.2013	/	Presentation and visit of Lima Corporate	LP, PP8
Innovations at the interface between ICT and biomedicine	Vipava, Slovenia	20.12.2013	/	Event during Trans2Care second winter meeting	PP3
Meeting at Parsek d.o.o.	Ljubljana, Slovenia	10.02.2014	/	Presentation and visit of Parsek d.o.o.	LP
Meeting at TBS Group-BioValley consortium	Trieste, Italy	19.05.2014	/	Presentation of BioValley and visit of TBS Group	LP
Meeting at CBM s.c.r.l. Area Science Park, Trieste	Trieste, Italy	23.05.2014	/	Targeted meeting with CBM s.c.r.l.	LP
Meeting at CBM s.c.r.l. Area Science Park, Trieste	Trieste, Italy	27.08.2014	www.cbm.fvg.it/news/s3-nel-comparto-biomed-biotech-and-bioict-incontro-con-le-aziende-fvg-del-settore-mercoledi-27-	S3 nel comparto BioMed & BioTech and BioICT - Incontro con le Aziende FVG del settore	LP
Meeting at CBM s.c.r.l. Area Science Park, Trieste	Trieste, Italy	03.09.2014	www.cbm.fvg.it/news/s3-biofvg-meeting-3-settembre-2014	S3 nel comparto BioMed & BioTech and BioICT Incontro con le Aziende del settore del Friuli Venezia Giulia	LP
Meeting at University of Trieste with Assobiomedica e Innoventually s.r.l.	Trieste, Italy	12.09.2014		FOCUS MEETING "FROM RESEARCH TO INNOVATION: WHAT TO DO NEXT IN THE ITALY-SLOVENIA CROSS-BORDER AREA?"	LP

WP6 - TECHNOLOGY TRANSFER

Lesson learned

The main conclusions that can be drawn from this workpackage activity are:

Industries, industry associations, healthcare providers and managers, were extremely interested to establish a dialogue with research laboratories, irrespective of the more or less advanced stage of technology readiness of research results offered by Trans2Care researchers and team managers.

Thus, the relations between research and industry can be built with a high degree of flexibility, time duration, mutual commitment, and creativity.

These interactions are however time demanding, so innovative solutions helping the parts to maintain stable contacts are needed.

The big challenge: a permanent network

WP7 - ENLARGEMENT AND CONSOLIDATION OF THE NETWORK

This phase of activity has aimed at preparing the ground for future joint initiatives, such as contacting new Partners in order to expand the Network, starting research–industry collaborations, helping the researchers involved in Trans2Care to find a new job, and the search for future funding to support the network's activities after the conclusion of the Project.

Objectives

1. The inclusion into the Network of at least 10 new associated Partners, supported by formal agreements for technology transfer, research and development of biomedical products and services and public campaigning.
2. A network agreement, involving 20 firms and Trans2Care Partners.
3. The start of at least 2 placements in two different companies for 2 Project researchers;
4. The start of at least 10 joint project proposals for the acquisition of financial support to maintain the future activities of the Network after the conclusion of the Project.
5. The study for foundation of a start-up located in the Programme Area.

Results

WP 7.1 COLLABORATION AGREEMENTS

The Network has established cooperation-oriented links with associate Partners and other bodies, listed in the Table below; agreements have been signed with them, which sets the conditions for joining forces in future actions aimed at ensuring sustainability of cooperation.

Table 8 - List of the collaboration agreements.

	ASSOCIATE PARTNER	ACTIVITY	LOCATION	PROMOTER	STATUS
1	**Lega Italiana per la Lotta contro i Tumori, sezione di Trieste (LILT)**	Strategic planning and Dissemination	Trieste	LP	Frequently Active
2	**Azienda per i Servizi Sanitari n.1 Trieste (ASS1)**	Strategic planning and Dissemination	Trieste	LP	Frequently Active. To be updated following regional reform (L.R. 17/2014)
3	**Science and Technology Park of University of Rijeka, Croatia (STePRI)**	Networking with industries	Rijeka (Croatia)	LP	Frequently Active
4	**University of Ljubljana, Institute of Pharmacology**	Research	Ljubljana	LP	Frequently Active

	ASSOCIATE PARTNER	ACTIVITY	LOCATION	PROMOTER	STATUS
5	**Medigenia s.r.l.**	Applied research	Gorizia	LP	Silent
6	**Polish Academy of Sciences**	Research	Warsaw (Poland)	PP1	Active
7	**University of Verona, Dept. of Genetics**	Research	Verona	PP4	Silent
8	**Educell d.o.o.**	Research	Ljubljana	PP11	Frequently Active
9	**Institute of Public Health Koper**	Research, dissemination	Koper	PP11	Active
10	**Vinča Institute of Nuclear Sciences**	Research	Belgrade (Serbia)	LP	Silent
11	**Assobiomedica**	Technology transfer	Roma	LP	Active

WP 7.2 COLLABORATION WITH INDUSTRY

Noteworthy is the agreement signed with Assobiomedica, the association of Italian industries of biomedical devices, that is associated to Confindustria, the main association representing manufacturing and service companies in Italy, with a voluntary membership of more than 150,000 companies of all sizes, employing more than 5 milions people. Through this agreement, Trans2Care network will have the possibility to identify industrial partners for future Research & Innovation activities. This agreement represent a significant simplification of the original target of subscribing a network agreement with at least 20 companies, stated in the original Trans2Care Application Form. It would be useful to have a similar strategic alliance with a similar industry association in Slovenia. This will be pursued in the 2014-2020 cross-border cooperation activities.

WP 7.3 THE JOB PLACEMENT OF THE RESEARCHERS

Placement in SMEs or other public organisations has been prepared by organising two courses. This first was on Contracts and agreements, given by the expert Adriano Savoini on 18.12.2013. The second was on Job placement and Labour market on 24.01.2014, given by two experts in labour law, i.e. Prof. Roberta Nunin of University of Trieste and Prof. Zvone Vodovnik of University of Ljubljana, on 24.01.2014.

The researchers have also been guided to drafting their career plans, to support their job placement. A journalist has supervised the description of their skills, competences and ambitions. Each researcher has got a profile casted into the project's visual identity frame, so completing their training in communication and branding. This is still unusual among post-doctoral researchers working in academic environment that still overlook the importance of personal branding.

Specific stages in SMEs were not organised, because in many cases the researchers and the Lead Partner maintained contacts with the industries, as a follow-up of their audits. In general,

Trans2Care researchers have not done the big leap from the public to the private sector. Among the reasons, an important one has been the interest of their supervisors (i.e. the Partners' team mangers) in retaining their researchers.

WP 7.4 JOINT PROJECT PROPOSALS

Already in 2012 the Partners engaged in applying for funding by national programmes. In Italy, the national PRIN programme 2010-2011, aiming at funding research carried out by academic consortia, recommended to invite foreign Partners. The Lead Partner coordinated the inclusion of the Slovene Partners in five Italian networks, as reported in "Meetings Proceedings" (page 138; EUT, Trieste e-ISBN 978-88-8303-514-2). Besides that, the Lead Partner coordinated 6 Erasmus agreements. Following this, the Partners have continued to individually apply for various national and international grants.
However, the sustainability of Trans2Care as such, i.e. a cross-border network aiming at developing innovations and technology transfer in the biomedical field, requires a specific programme of territorial cooperation. At the end of our operations, one can conclude that the most suitable instrument of sustainability is a cross-border cooperation programme for the 2014-2020 programming period.

WP 7.5 THE STUDY FOR FOUNDATION OF A START-UP

Establishing a start-up is one of the most ambitious outcomes of applied scientific research. The idea behind a start-up must be sound scientifically, technologically and be confirmed not just by the academic community but also by the end users.
During our project, we have seen that most biomedical researchers, either in Trans2Care network or in the large Programme Area, are academically oriented, so their research outputs have a low score of Technology Readiness Levels.

The factors needed to create an environment favourable for start-up foundation are cultural, i.e. those different elements that unite persons having different backgrounds. We need here more cooperation involving:

- Research and industry;
- Researchers in various disciplines, so to better address the wide and complex needs of science and technology expressed by industry;
- Public research and innovation mediators;
- Public research and local public authorities.

In a few words, an entrepreneurial environment requires territorial cooperation among various actors, and planning and managing a few steps to make cooperation stable and growing in quality year by year.
In our cross-border area, managing either territorial cooperation or innovation largely coincides. Therefore, a body defined as an innovation mediator, putting in practice the guidelines of "Innovation Management for Practitioners" (Publications Office of the European Union, 2013; ISBN 978-92-79-29717-5; doi 10.2777/10737), might be most useful to keep together public research with industry and public authorities.

A functioning body like this seems to be the catalyser of innovation and entrepreneurship, thus the Lead Partner drafted a position paper to outline the few steps that are essential to boost research coordination, innovation and local entrepreneurship in the biomedical field (available in Trans2care website, Section Results, Sub-section Vision: www.trans2care.eu/Sections.aspx?section=588.598).

POSITION PAPER - THE INNOVATION MEDIATOR

An innovation mediator supporting concrete actions to link research with hospitals and industries should organise its activities in a series of steps, starting from the grassroots' levels. If young post-doctoral researchers, recruited for the purpose of founding that new initiative, would implement these activities, then the overall project might have an experimental character, which is perfect for training and building new skills. Thus, multiple funding programmes could support this experiment, which is in line with the concept of using European Structural and Investments Funds synergistically.
The innovation mediator could be established through 4 pilot actions.

Step 1 – Pilot action for knowledge management
The scientific expertise available at the local, cross-border level is not easily accessible outside the scientific community, because a specific showcase is not available. Thus, usage of research expertise and infrastructure is hindered, and requires an investment of personal time to navigate in the Internet, to learn or to enter in contact with "the right person". The access to R&I information can be dramatically facilitated by a searchable IT platform displaying core data and suggestions for their possible use.
A team of persons having different expertise is needed to design and realise such interactive IT platform: researchers, designers, programmers, managers, experts of public communication, etc.

Step 2 – Pilot action of Training of human capital
Biomedical researchers are usually focussed on addressing technical and scientific issues, whose solutions are communicated by means of articles published in specialised journals or books. Their readers are peers, i.e. experts working in the same field but in different institutions. Researchers are poorly oriented at the exploitation of their research results up to the final stages (i.e. prototyping, industrialising, marketing), which requires different mind-sets, skills and working communities. The last phases of innovation are usually performed by laboratories of applied research and SMEs, and need a work organisation that is very different than that in academic research laboratories. These two worlds can be closer to each other if researchers can have access to supplementary training to become innovators, so learning the fundamentals of social, economical and law disciplines. The training scheme of Trans2Care researchers can be used as a starting point, though it can be improved by capitalising with other similar experiences (e.g. Project Pacinno, web: www.pacinno.eu).
The results of this pilot action will be:

- Basic skills for product development, innovation and technology transfer;
- Basic skills for entrepreneurship, including business planning and capital raising;
- Basic skills for managing the IT knowledge platform (see above);
- A roster of biotech/biomed firms connected and regularly updated about the research potential of the area.

Step 3 – Pilot action "Project incubator"
A team (task force) made by trained researchers should make up a task force for establishing "Systems of pre-assessment, implementation, monitoring and valorisation of small inter-sectorial projects". In facts, small projects can be designed, selected, implemented and monitored, aiming at strengthening and refining the collaboration between academic researchers, hospitals and SMEs. It seems important that these projects are not just regarded as a stimulus to research and innovation for SMEs, but are scrutinised to identify those basic factors that make a given inter-sectorial collaboration successful. One can guess that factors comprise not only the good match between availability of technology and the need to develop a good product by SMEs, but also

the a set of best practices in the reciprocal interaction (e.g. regular meetings, exchange of staff, clarity of periodical reports, propensity to learn from experience and set strategies, transparency solutions, public engagement, etc.).
The value of this "Project incubator" is that the trained researchers will draft the calls and carry out the pre-assessment for the selection of the small projects, by which they will acquire extra-skills. This task force will work in close connection with the Managing Authorities of the various R&I Programmes supported by European Structural Funds. This will maintain a rich dialogue in the system, refining the reciprocal understanding between administrators and beneficiaries of European funds.
The easiest way to fund these small R&I projects is via vouchers, covering the costs of research, mobility, and dissemination. The beneficiaries are master or PhD students, wishing to carry out cross-sectorial research (i.e. in collaborations with hospitals or SMEs), under the supervision of expert researchers and professors, medical staff or entrepreneurs. The duration of these projects will be no more than 2 years. If successful, they can develop into more sustainable projects, funded by European Territorial Cooperation and Horizon 2020.
Given the centralised management of these voucher-based small projects, this pilot action can be regarded as "project incubator". Each project will serve as a case study for what are the factors of success in R&I. Clearly, only this "policy learning" step will make this pilot action radically different from the old-style distribution of subsidies for untargeted research to universities. The policy-learning step will be implemented by pilot action 4 (see below).

The results of this pilot action will be:

- Rationalisation of project management of multiple projects, exploiting the IT platform developed by pilot action 1 (see above);
- Reduction of administrative burden for the project units;
- Dissemination and marketing of the results obtained by the small projects;
- A new generation of innovation-oriented researchers and managers, holding a professional profile, combining a scientific background with managerial skills, simultaneously fit for different environments, such as industry, academia, research organisations, and even the public administration.

Step 4 – Pilot action "Policy-learning, strategy and foundation"

This action should carry out the policy-learning study, define a strategy and produce an action plan detailing the management, the scientific, technology and innovation goals of the Innovation Mediator. Furthermore, it should include an outline of the procedures to identify the persons in charge of leading and administering it. The procedures should be transparent, neutral and provide a benchmark implementation of the thematic objective 11 of Cohesion Policy 2014-2020.

General features of the Innovation Mediator project

1. *Social innovation.* The innovative aspect of this project is its implementation by a team of young researchers. Under an enlightened guidance, they will be able to carry out most of the tasks related to the 1-2-3 pilot projects. They will develop entrepreneurial skills needed to modernise the whole local system of academic and research organisations, healthcare and industry. In a couple of years, up to 50 young researchers could be trained and retained locally, thus activating a structural change in local R&I.
2. *Transparency and neutrality.* A high standard of transparency and neutrality is needed to identify the persons able to lead this project. Quality of leadership is one of the main factors of innovation, and a driver for the change needed to activate the economic and social impact of research in the Area.
3. *Accountability.* These persons selected to carry out the tasks of pilot project 4 will work under

the coordination of the local public authorities, and in connection with the academic, research and technology transfer organisations.

Perspectives

The above project could be implemented anywhere. In the Regione Friuli Venezia Giulia, a body named Coordinamento degli Enti di Ricerca (CER, based in Area Science Park) coordinates nearly 60 regional research organisations. Among these, the Cluster in Biomedicine (Consorzio per il distretto tecnologico di biomedicina molecolare, www.cbm.fvg.it) acts as a mediator between research and industry in the field of biomedicine. It could therefore host this project to improve the usability of research results and skills offered by the regional research system and promote technological innovations in SMEs.

If the regional and cross-border area will improve the practice of research & innovation, further investments for the whole innovation chain will more feasible. The target should be to sharply increase both public funds, especially form Horizon 2020 calls, and private ones.

With more financial resources, the system will be more productive and appealing towards big firms in the field of pharmaceuticals and biomedical devices. This could transform the cross-border economy, exactly as envisaged in the Operational Programme Italy-Slovenia 2007-2013.

Position paper

WP7 - ENLARGEMENT AND CONSOLIDATION OF THE NETWORK

Lesson learned

The Trans2Care network has attracted the interest of many subjects.

Individual researchers have seen our project as an inclusive network, and hence a system offering the chance to develop research in an interactive, coordinated and potentially very creative way. Their interest culminated with their enthusiast participation to the Cross-border Biomedical Conference held at the University of Trieste on 27.02.2014, with as many as 180 registrations to the event, and 65 research topics presented as posters and published in the Conference proceedings book. It was a unique opportunity to meet close, though unfamiliar, colleagues and see what was going on at the local level.

The lesson drawn is that much higher attention must be given to strengthen local, even in-house, collaborations. Though it sounds a paradox, the cohesion and cooperation policy should now be first replicated within single, large institutions, and only after expand on a wider territorial scale.

The industry has recognised in Trans2Care members the serious engagement in starting a dialogue for future collaborations. It is significant that many industries have warmly welcomed our Trans2Care researchers in their premises, and enabled them to perform technology audits. Another important point is the interest of Assobiomedica, the Italian association of biomedical devices industries. It has signed a cooperation agreement wit our network and given a high-level contribution to the Closing conference and this book.

The lesson is that academia-industry interactions are feasible, and can be played at various levels, with the common trait of the cult of sharing: knowledge, technologies, objectives, methods, junior and senior staff, projects. Formulas are in excess.

The most problematic issue faced by the project has been the weak dialogue with the heads of both the research institutions and the local governments, in spite of the latter being kept constantly informed about the milestones of the project. This attitude casts doubts about the capacity of cooperation projects to introduce concrete changes in the sector of intervention (i.e. research & innovation).

Indeed, a strong, local and internal cooperation involving the public institutions of research and the government is essential to enable researchers to access to Horizon 2020 R&I grants. Research excellence is not the only success factor. Institutional capacity, in its many aspects, is reflected in important sections of the grant proposals, with a strong weight in the evaluation.

Not surprisingly, the most realistic financial sustainability of Trans2Care network seems to be the Interreg V Italy-Slovenia 2014-2020, which shows that the full potential of evolution and development of Trans2Care has not been exploited.

WP8 - COMMUNICATION PLAN

WP 8 STRATEGIC OBJECTIVES OF TRANS2CARE

The ambition of Trans2Care is to be a stable network of research institutions, with deep roots in the Italy-Slovenia cross-border Area, and the capacity to include new members over a wider geographical Area.

This is believed to be a conditionality to establish productive connections with a number of stakeholders, such as industries, healthcare institutions, educational institutions, public administrators, policy-makers, and the citizen at large.

The objective is that each piece of knowledge is used, according to the stakeholder needs. By addressing a so heterogeneous panel of stakeholders, the use of scientific knowledge will be maximised, so increasing the opportunity to develop innovations.

No such undertaking can evolve and succeed without a communication effort. In facts, "network" means to regularly share information, personnel, infrastructures, and "connection" means exploring what to do together sooner or later or now.

SPECIFIC AIMS OF THE COMMUNICATION PLAN

1. Engage and commit Trans2Care Partners in every single activity of the project; to promote the culture of collaboration, sharing, and participation. To keep the network tight and happy.
2. Engage the professional staff (and the students, if applicable) around Trans2Care working units in sharing the general objectives of the Cross-border Cooperation Programme Italy-Slovenia 2007-2013 and the specific objectives and activities of Trans2Care network.
3. Reach out industries and their associations, healthcare personnel, institutional leaders, etc.
4. Involve media: local, national, specialist
5. Involve the youth, through schools, teachers and professors.
6. Involve the general public.
7. Demonstrate the impact of Trans2Care networking and results.

CHANNELS OF COMMUNICATION

1. Media: local and national; international scientific publishing; print, broadcast, web, social.
2. Lobbying: academic, local and national government, the Managing Authority of the Cross-border Cooperation Programme Italy-Slovenia 2007-2013, the European Commission.
3. Marketing: brand through visual identity items, website, advertising, brochures, fliers, video.
4. Events: conferences, events, public speeches, tours of building sites.

MEANS OF EVALUATION

1. Size of press review (n. of articles)
2. Attendance at events
3. N. of visits of website, facebook, twitter and OpenstarTs .
4. Monitoring and reporting communication activities.

OUTPUTS

Visual identity setRealisation of a logo for the project visual identity and its use according to the visual identity of the Cross-border Cooperation Programme Italy-Slovenia 2007-2013.

1. Information material
2. Realisation of the following materials (amounting to 6.2 Gigabyte for 6.500 items produced between 30.04.2011 and 24.04.2014): puoi forse aggiornare?
    - Poster: >10
    - Fliers: >16
    - Brochures/Volumes: 8
    - V-cards
    - Banner in PVC
    - Holder for a magazine
    - Set for events (Trieste Next2013 and Researchers' Night2013)
    - USB Card

Website

- Realization of tri-lingual (Italiano-Slovene-English) website www.trans2care.eu, operating 4 months after the project's start, continuously updated. Divided in sections: Home; Project; Partners; T2C Teams; News; Media; T2C Books; Results.
- The website publishes not only information on the project's results, but also documents useful to promote innovation.
- The website supports a Content Management System, where all project's documents are stored.

Events

Events for the general public and the students

The projetc's activities and results have been presented through events organised either by the Lead Partner or the Project's Partners. In some cases, Trans2Care staff have participated in big events organised by ather bodies.

1. Kick-off meeting in Trieste on 21.11.2011.

    This event took place in the Auditorium of the Hotel Balkan Building, that hosts both a section of the Department of Legal, Language, Translation and Interpreting Studies and the Slovene information centre "Narodni Dom". Academic and local government authorities have participated to the meeting, which has been well covered by local media.

2. Organisation of "Giornata Porte Aperte" at Orthopaedic Hospital Valdoltra, Ankaran on 08.06.2012, in charge of Project partner 11.
3. Organisation of "Visit of Druga Gimnazija to University of Trieste", with oral reports, Trieste on 24.05.2012.
4. Organisation of Conferenza "Longevità in salute", in the framework of TriesteNext2012, Trieste on 29.09.2012.

   The event took place in the Main Hall of the Chamber of Commerce, in the historic building of Trieste's Stock Exchange. An information campaign has been launched by the University of Trieste, reaching both Milan and Ljubljana municipalities, where Trieste's academic delegations have promoted TriesteNext2012 and the contribution by Italy-Slovenia cross-border network to the respective mayors, i.e. Mr. Pisapia and Mr. Jankovič.
5. Participation to the open space BarcolanaVillage in the stand of the Managing Authority of the CBC Programme Italy-Slovenia 2007-2013, with a poster, Trieste on 11.10.2012.
6. Organisation of the public event "Ricerca e trasferimento tecnologico nelle aree di confine: una sfida e un'opportunità per la cooperazione transfrontaliera Italia-Slovenia" in the frame of NEAR Notte dei Ricercatori/Researchers' Night 2013, Udine on 27.09.2013.
7. Organisation of the public events "Ricerca e salute", "I ricercatori si raccontano", "Arriva l'antidoping" in the frame of NEAR Notte dei Ricercatori/Researchers' Night 2013, Trieste on 27.09.2013.
8. Organisation of the public events "Controlla il tuo peso, controlla la tua salute; Tre indizi in una goccia di sangue; La dieta giusta per tenere lontano il cancro; I rischi del doping" in the frame of NEAR Notte dei Ricercatori/Researchers' Night 2013, Trieste on 28-29.09.2013.
9. Participation to the Festival Internazionale with a poster, Ferrara on 4-6.10.2013, in charge of Project partner 4.
10. Organisation of the public Closing Conference of the Trans2care project "The big step from Research to Innovation. Operations and mental patters", Trieste on 11.09.2014.

    This event took place in the Auditorium of the Hotel Balkan Building (Narodni Dom, via Filzi 14). Academic and local government authorities have participated to the meeting. Furthermore, three Italian and three Slovene experts have been invited to give their speech and to evaluate to take stock of the results presented by three Trans2Care researchers, and two external collaborators. The event has been covered by local media.

Events for the specialists

1. Participation in Slovenski kemijski dnevi 2012 with scientific posters, Portorož (Slovenia) on 12-14.09.2012.
2. Participation in XV Conferenza Nazionale - Ospedali per la Promozione della Salute with a poster, Trieste on 8.11.2012.
3. Participation in NanotechItaly2012 with a poster, Venezia on 21-23.11.2012.
4. Participation in 7th Conference on Experimental and Translational Oncology with a poster and one pleanary presentation, Portorož (Slovenia) on 20-24.04.2013. In charge of Project partner 12.
5. Patronage and speech at the public Conference Combattere i tumori con la ricerca e i programmi di screening-Le nuove frontiere dell'innovazione con le nanotecnologie, Trieste on 23.05.2013.

6. Participation in Riunione dei ricercatori biochimici della scuola bolognese with an oral presentation to a plenary session, Bologna on 05.07.2013.

   The project, its objectives, its activities and its results have been presented to a community of 50 experts in biochemistry from about 10 universities in Northern Italy.

7. Participation in Slovenski kemijski dnevi 2013 with scientific posters, Maribor (Slovenia) on 11-12.09.2013.

8. Participation in 6th Central European Conference "Chemistry towards Biology", with a collection of 9 scientific posters, one oral preseantation and a plenary presentation of the Trans2Care project, Trieste on 10-13.09.2013.

   The project, its objectives, its activities and its results have been presented to a community of experts from Central Europe and from the University of Trieste. Most Trans2Care Partners have presented theri research activities in "abstracts", published in the Conference book of abstracts, in a special section dedicated toTrans2Care.

9. Organisation of Workshop "Medicine for Nanotechnologies - Nanotechnologies for Medicine" in the framework of NanotechItaly2013, Venezia on 27.11.2013.

   Trans2Care Researchers have given oral presentations of their results, giving the audience an in-depth description of the technologies and approaches developed by Trans2Care Partners. NanotechItaly is organised by Veneto Nanotech, the governing institution of the Nanotechnology district of Regione Veneto.

10. Organisation of the Thematic table "Ricerca biomedica per la salute" in the framework of the Conference ITA-SLO Health & Research Network Meeting, Gorizia on 04.12.2013.

    The Lead Partner of Trans2Care has contributed to the organisation of the Conference, promoted by the Joint Technical Secretariat of CBC Programme Italy-Slovenia 2007-2013 to foster capitalisation of results obtained by health & biomedical research projects. Tran2Care and 5 other biomedical research projects, such as Glioma, Mina, Pangea, Proteo and Sign), met together for the first time and started exchanging ideas and perspectives (http://www.ita-slo.eu/capitalizzazione_risultati/2013120510281838/).

11. Organisation of the Conference "Cross-Border Italy-Slovenia Biomedical Research: Are we ready for Horizon 2020?", Trieste on 27.02.2014.

    More than 150 experts have attended this Conference, hosted in building H3 of University of Trieste, with the technical support of the University's administration. Sixty-five posters, displaying biomedical technologies have been evaluated for their Technology Readiness Level. A lively discussion followed about R&I funding by Horizon 2020 (http://www.ita-slo.eu/capitalizzazione_risultati/2014021308555819/).

12. Organisation of the Thematic table "Technology transfer" in the framework of the Conference "Capitalizzazione dei risultati dei progetti nell'ambito della ricerca, sviluppo e innovazione", Bled (Slovenia) on 14.07.2014.

    The Lead Partners of Citius and Trans2Care have contributed to the organisation of the Conference, promoted by the Joint Technical Secretariat of CBC Programme Italy-Slovenia 2007-2013 to foster capitalisation of results obtained by research & innovation projects. Tran2Care and 2 other research projects, such as Citius and Pangea), met together and presented an analysisand suggestions on how to improve technology transfer fron research laboratories to the industry in the cross-border Area (http://www.ita-slo.eu/capitalizzazione_risultati/2014071812255774/).

Trans2Care Scientific Workshops

In the frame of Workpackage 8 (Communication), Trans2Care Partners organised scientific workshops aimed at facilitating the exchange of knowledge among Partners, the promotion of Trans2Care concept in the hosting institutions and implementing part of the Workpackage 4, by which Trans2care Researchers developed skills needed to transfer knowldege to society.

1. 30.11.2012 - Third scientific day of Valdoltra Orthopaedic Hospital, Valdoltra Orthopaedic Hospital, Ankaran
2. 14.03.2013 - Bilirubin in translational medicine, University of Primorska, Izola
3. 06.06.2013 - Bilirubin in translational medicine, University of Ferrara, Ferrara
4. 06.09.2013 - T2C Cancer workshop: from prevention to novel treatment approaches, University of Primorska, Izola
5. 19.09.2013 - Molecular tools to study neurodegeneration, SISSA, Trieste
6. 18.10.2013 - Orthopaedic diseases: diagnostics, treatments and research, Valdoltra Orthopaedic Hospital, Ankaran
7. 03.12.2013 - Cellular membrane transport, University of Trieste, Trieste
8. 20.12.2013 - Biomarkers in cardiology, University of Nova Gorica, Nova Gorica
9. 31.01.2014 - Coeliac disease and chronic Inflammatory diseases of the intestine: inside and outside the intestine, Burlo Pediatric Hospital, Trieste
10. 10.02.2014 - Mathematics in chemistry and biology, National Institute of Chemistry, Ljubljana
11. 5-16.05.2014 - Monoclonal antibodies: production, research and clinics, City Hall, Ljubljana

Technical meetings with industries, associations and other bodies (B2B)

By implementing Workpackage 6 (Technology transfer), Trans2Care Partners presented not only their specific research and technology offer, but also their belonging to a network of institution. This feature became more and more defined with the progress of joint activities.

1. 28.09.2012 - Food&Nutrition Technology Dating, Trieste (http://www.b2match.eu/next2012/participants/50).
2. 28.09.2012 - Nordest Technology Transfer, Trieste (13 projects; http://www.triestenext.it/progetti/nordest-technology-transfer/)
3. 07.12.2012 - BioMech Brockerage event, Rijeka (Croatia) (http://biomech.talkb2b.net/members/details/27/6).
4. 29.05.2013 - Innovation in the field of diagnostics for healthcare: is innovation worth for improving health care or is it only an additional cost? Venezia, in charge of Project partner 7.
5. 19.06.2013 - Biomedica 2013 Brokerage event, Aachen (Germany) (http://www.b2match.eu/biomedica2013/participants/34).
6. 27-8.09.2013 - Nordest Technology Transfer, Trieste (3 projects; http://www.triestenext.it/progetti/nordest-technology-transfer/)
7. 20.12.2013 - Innovations at the interface between ICT and biomedicine, Vipava, Slovenia, in charge of Project partner 3.
8. 10.02.2014 - Meeting at Parsek d.o.o., Ljubljana.
9. 19.05.2014 -Meeting at TBS Group-BioValley consortium,Trieste.
10. 23.05.2014 - Meeting at CBM s.c.r.l. Area Science Park, Trieste.

11. 27.08.2014 - Meeting at CBM s.c.r.l. Area Science Park, Trieste.
12. 03.09.2014 - Meeting at CBM s.c.r.l. Area Science Park, Trieste.
13. 12.09.2014 - Focus meeting with Assobiomedica and Innoventually s.r.l. From research to innovation: What to do next in the Italy-Slovenia Cross-border Area? Trieste.

VIDEO

1. Interviste di Euroregionenews a Elio De Annas, Bostjan Zeks e Sabina Passamonti in occasione del kick-off meeting Trieste, 21.11.2011
   http://euroregionenews.eu/newsesterne/newsletter_fvg_251111.html
2. Videoripresa del kick-off meeting Trieste, 21.11.2011 http://servertv.units.it/t2c/index.html
3. Intervista a Sabina Passmaonti e Malden Franko a TV Capodistria MERIDIANI del 15 ottobre 2012
   http://ava.rtvslo.si/predvajaj/meridiani/ava2.148043750/#ava2.148043750
4. Trans2care: prevenzione, diagnosi e cura delle malattie legate all'età, ottobre 2012
   https://www.youtube.com/watch?v=Lp9l6j8PO24
5. Intervista a Sabina Passamonti coordinatrice Trans2Care, Trieste NEXT 2012
   https://www.youtube.com/watch?v=AG9cNV-ngYQ
6. Trans2Care Team Interview
   https://www.youtube.com/watch?v=ImAW-Y1hyog
7. Trans2Care - The voice of its researcher - Extended version (07:30)
   https://www.youtube.com/watch?v=8P9VBCU332U
8. Trans2Care - The voice of its researchers (01:31)
   http://www.youtube.com/watch?v=C-MCtCNKMQY
9. Spot Trans2Care (03:32)
   EN >> http://www.youtube.com/watch?v=pSkrHSB9r8A
   ITA >> http://www.youtube.com/watch?v=frr5ti-rqIw
   SLO >> http://www.youtube.com/watch?v=TkWnihe49Qw
10. Partcipazione alla trasmisisone TV Capodistria, 4 ottobre 2013
    http://www.youtube.com/watch?v=I7OdLXKGBNw
11. Cross-Border Italy-Slovenia biomedical research: are we ready for Horizon 2020?
    CONFERENCE, 27 febbraio 2014 - Università degli Studi di Trieste
    https://www.youtube.com/watch?v=WwAQ88XPQWo
12. Growing together: EU enlargement. A story from Italy (1:42 min). Intervista al ricercatore Trans2Care Lovro Ziberna realizzata all'Università di Trieste. Pubblicata il 14.05.2014. Youtube main chanel: https://www.youtube.com/watch?v=WM9jF8s1bWU Official video link: http://ec.europa.eu/avservices/video/player.cfm?ref=I089382

FLIP BOOKS

Available for download from:

- Trans2Care website: http://www.trans2care.eu/sections.aspx?section=585
- University of Trieste Press: http://eut.units.it CAT?query=ANY%253Dtrans2care&orderby=DTE&page=0

1. Trans2Care brochure
   http://books.trans2care.eu/Trans2care_Brochure
2. Trans2Care 2nd Spring Meeting
   Treviso and Venezia, 28-29 May 2013
   e-ISBN 978-88-8303-514-2
   EUT - Edizioni Università di Trieste, Via E. Weiss, 21 - 34128 Trieste - http://eut.units.it
   http://www.trans2care.eu >> http://books.trans2care.eu/t2cMeeting2013
   OpenStar Trieste >> http://www.openstarts.units.it/dspace/handle/10077/9150
3. Fame di salute
   Settembre 2013, in collaborazione con ASS n. 1 Triestina, LILT, COOP Consumatori Nordest
   http://books.trans2care.eu/famedisalute
4. Trans2Care Today&Tomorrow (December 2013)
   http://books.trans2care.eu/todaytomorrow
5. The Partners and the Objectives of Trans2Care, an Italy-Slovenia cross-border network of science and healthcare institutions
   ISBN 978-88-8303-512-8 / e-ISBN 978-88-8303-513-5
   Revised Edition of 20 December 2013
   EUT - Edizioni Università di Trieste, Via E. Weiss, 21 - 34128 Trieste - http://eut.units.it
   http://books.trans2care.eu/t2cvol1

PUBLIC PRESENTATIONS

Available for download from:

Trans2Care website: http://www.trans2care.eu/Sections.aspx?section=510.524

Trans2Care on Slideshare: http://www.slideshare.net/trans2care. Visit n. as on 06.10.2014.

1. Piani di lavoro: Coscienza e prospettive, Kickoff meeting Trieste 21.11.2011 (174 visits).
2. Trans2Care Today and Tomorrow, December 2013 (281 visits).
3. ITA-SLO Health & Research Network Meeting, Gorizia 03.12.2013 (150 visits).
4. Cross-border Biomedical Research Conference-Facts, Figures, Features, Trieste 27.02.2014 (1127 visits).
5. Work-life balance in T2C. Trieste, 16.05.2014 (150 visits).
6. Research, Development & Innovation In Tran2Care. Bled, 14.07.2014 (263 visits).
7. Knowledge and technology transfer from Trans2Care project. Closing Conference. Trieste, 11.09.2014 (16 visits).
8. Scientific results of Trans2Care. Closing Conference. Trieste, 11.09.2014 (27 visits).

9. Building of human capital in Trans2Care. Closing Conference. Trieste, 11.09.2014 (31 visits).
10. Project management and possible simplifications. Closing Conference. Trieste, 11.09.2014 (25 visits).
11. Dissemination. Closing Conference. Trieste, 11.09.2014 (20 visits).
12. DREAMING, PLANNING, DOING for 2014-2020. Closing Conference. Trieste, 11.09.2014 (150 visits).
13. Ricerca e innovazione nella Politica di Coesione 2014-2020. Quanto conteranno le questioni di genere? Commissione regionale per le pari opportunità, 17.09.2014.
14. Academic carreer development by bridging research with society: the experience and results of Trans2Care project. 4° Colloquium of Genetics, Marine Biology Station, National Institute of Biology, Piran, 19.09.2014.

OPENSTARTS

OpenstarTs is the institutional archive of University of Trieste: http://www.openstarts.units.it/dspace/handle/10077/9643

SOCIAL MEDIA

1. Flickr http://www.flickr.com/photos/trans2care
2. Facebook http://fb.me/trans2care
3. Twitter @Trans2Care
4. SlideShare http://www.slideshare.net/trans2care

SCIENTIFIC PUBLICATIONS

The scientific results have been reported in scientific publications (01.04.2011-30.09.2014), listed in the Annex.

TRANS2CARE SOCIAL REPORT

THE CLOSING CONFERENCE

University of Trieste
Auditorium, via F. Filzi, 14 - Trieste
11th September 2014

PROGRAMME

WELCOME

15:00-15:30

Maurizio Fermeglia - Rector of the University of Trieste

Paolo Pittaro - Director of the Department of Legal, Language, Translation and Interpreting Studies, academic senator

Roberto Cosolini - Mayor of Trieste

Maria Teresa Bassa Poropat - President of the Province of Trieste

Maria Sandra Telesca - Regional Minister for health, social integration, social policy and family, Regione Autonoma Friuli Venezia Giulia

Laura Comelli - Managing Authority of the Cross-border Cooperation Programme Italy-Slovenia 2007-2013

Moderator - **Giorgio Tessarolo,** expert of European policies

THE NEEDS OF THE SOCIETY

15:30 – 16:00

The government and the need of knowledge

Boštjan Žekš - Academician, Senior Adviser to the President of the Republic of Slovenia

Sergio Bartole - Professor emeritus of constitutional law and Member of the Venice Commission - Council of Europe

16:15 – 16:45

The needs of the healthcare

Adele Maggiore - Director of Azienda per i Servizi Sanitari n.1 della Regione Autonoma Friuli Venezia Giulia

Tit Albreht - Head of the Centre for Healthcare System at the National Institute of Health, Republic of Slovenia

THE REPLY BY TRANS2CARE

16:00 – 16:15

Building of human capital in Trans2Care

Francesca D'Este - Trans2Care Researcher at the University of Udine

16:45 – 17:05

The scientific results of Trans2Care project

Lovro Žiberna - Trans2Care Researcher at the University of Trieste

THE NEEDS OF THE SOCIETY

17:05 – 17:35

The needs of the industry

Paolo Gazzaniga - Director of the Research Office of ASSOBIOMEDICA

Boštjan Antončič - Professor of entrepreneurship, University of Ljubljana

THE REPLY BY TRANS2CARE

17:35 – 17:50

Knowledge and technological transfer from Trans2Care project

Mitja Martelanc - Trans2Care Researcher at the University of Nova Gorica

FUNCTIONING OF TRANS2CARE: INTERNAL ENGINES AND EXTERNAL VIEW

17:50 – 18:05

Project management and possible simplifications

Adriano Savoini - Project manager of Trans2Care (T&B Associati s.r.l.)

18:05 – 18:15

Communication

Rodolfo Riccamboni - Communication manager (Divulgando s.r.l.)

TRANS2CARE IN EUROPA 2020 STRATEGY

18:15 – 18:30

Dreaming, planning and doing for 2014-2020

Sabina Passamonti - Coordinator of Trans2Care project, University of Trieste

TRANS2CARE ACKNOWLEDGES

18:30 – 19:00

Round table with the Team Managers of the 13 Partners of Trans2Care

VADEMECUM

*The **Trans2Care Strategic Project** has received 2.61 million Euros to achieve two objectives of the Operational Programme Italy-Slovenia 2007-2013:*

- *Promote R & D and the knowledge-based economy.*
- *Improve and qualify the potential employment in the sector through coordinated education.*

IS THIS MONEY WELL SPENT?

- **We are asked this by the citizens**, whose **taxes** have created the large 'war-chest' of the **EU Structural Funds**, which were also used to finance the Trans2Care Strategic Project.
- **We are asked the same question by the Managing Authority of the Programme for the Cross-border Cooperation Italy-Slovenia 2007-2013** which selected this project among many others, has duties of supervision and must report to the **European Commission** on what has been accomplished.

We want to explain how we used the funding and the results we have obtained:

A REVIEW AND A DIALOGUE, TWO OBJECTIVES OF THE CONFERENCE

We want to present a **summary** of the actions and results **to the public and to the authorities** so that everyone can make their own **judgment**. At the same time, we want to enter into a **dialogue with the experts**, that will help us verify that the results of the project can really **produce a lasting effect in the area in question**.

The **experts** will tell us what are, in their view, the the government's most urgent knowledge requirements in terms of health care and industry. For each of these sectors a Slovenian and a Italian expert have been invited.

Each expert's presentation will serve as a counterpoint to the report on the activities and the results of **entrepreneur training**, **education**, **research and technology transfer**. **Three researchers recruited by Trans2Care** will also speak, witness as well to the balance achieved between their dedication to the project and their family commitments.

The **public** and the authorities will therefore have the opportunity to form their **own idea** as to whether the results of the project provide specific answers to the needs expressed by the experts.

THE TOPICS FOR DISCUSSION

The questions for the experts:

Knowledge has always been a source of growth, wealth and health. Therefore, the specific questions are:

1. The modern **state** organizes and finances **universities** and **research centres**, where studies and research, conducted by students and young researchers, produce **new knowledge**. The Europe 2020 strategy indicates, among other things, that investment in R & D should reach 3% of GDP. However, with current levels of investment in R & D in both Italy (1.27%, national target 1.53%) and Slovenia (2.8%, national target 3%), smart growth seems not to have taken off as yet. There is therefore **unemployment**, and "**brain drain**" bringing about social impoverishment and pushing the horizon for"smart growth" ever further away for lack of human resources.

   a. What, in your opinion, represents the knowledge necessary for the government to improve the efficiency of investment in Research, Innovation and Development?

   b. One hears about the importance of scientific and technical disciplines, but at the same time, of the need for "soft skills". Where does the right balance lie? Where should the government invest in doctorates? Technical-scientific, socio-economic or in humanities-based research?

2. **Health care**, especially in a city like Trieste, which is a social model in Europe, faces the growing challenge of an ever-older, ever-poorer population and more and more plagued by loneliness.

   a. What knowledge is needed to ensure the sustainability of public health services?

   b. What knowledge is needed to promote healthy aging?

3. **Industry** has a constant need to innovate products and services for an increasingly demanding and competitive global market.

   a. What technical and scientific knowledge are biomedical companies looking for?

   b. What professional profiles are companies looking for when hiring their staff?

THE ACCOUNT OF THE ACTIONS AND RESULTS OF TRANS2CARE

1) A new profession for young researchers: scientific experts in close contact with industry and society

A group of 14 researchers recruited for 3 years. The researchers have perfected their **technological training**, providing **impetus to research and cross-border collaboration** and have carried out an **entrepreneurial training programme**. They now have skills suitable for working with industry, healthcare professionals and associations.

2) Scientific research, discovery and utilisation

Partner	Problem	Discovery	Who cares?	What is left to do?
PP4, PP12, LP	Obesity and overweight	New early markers of disease risk; Mechanisms for prevention	Healthy young adults	Communication campaign
PP12, LP	Cancer and lifestyles	Mechanisms for prevention	Healthy people	Communication campaign
PP2	Neurodegenerative diseases	New early markers of disease risk	Clinical researchers, neurologists	Designing and implementing clinical studies
PP6	Syncope	New cheap diagnostic method	Cardiologists, neurologists	Software development for data analysis
PP9	Coeliac disease (gluten intolerance)	New method for early diagnosis	Pediatricians, gastro-enterologists	Using the method in other hospitals
PP11, PP8	Life span of orthopaedic implants	New biocompatible materials	Orthopaedicians	Technological development
PP1, PP3, PP7, PP8, PP10, LP	Supply of diagnostic and research reagents, advanced computational and analytical methods	New computational and analytical methods (laser and electrochemical technologies, bioseparations) and diagnostic bio-reagents	Researchers	Further validations

3) Innovation & Technology Transfer

Innovation is the use of knowledge to solve problems and improve people's lives. Therefore, the knowledge must either reach people directly or specialists for health and well-being. The process is gradual and requires teamwork.

We have created an organic innovation model, the first we are aware of in the cross-border area.

4) Management and Communication

Careful management of funding and internal control of the performance have allowed the use 97.7% of the funding obtained in accordance with the regulations.

The publication of the activities and results on the project website and their dissemination through several different information channels have helped reach an enormous number of people. The project is recognized as a reliable and promising with regard to future initiatives.

PROPOSALS FOR THE FUTURE

Improve >> Refine the innovation model using technological and management improvements.

Include >> Widen the innovation model by including other local biomedical and clinical research units, technological development preventive medicine services and communication operators.

Connect >> Strengthen the links with local industry, healthcare organizations and administrative bodies in the area.

Attract >> Involve large companies in the development of new products and services.

THE EXPERT'S OPINIONS ON THE SOCIETAL NEEDS OF KNOWLEDGE

Sabina Passamonti
The big step from research to innovation 2007-2013
ISBN 978-88-8303-792-4 (print) / 978-88-8303-793-1 (online)
EUT - Edizioni Università di Trieste, 2016.

PUBLIC FINANCING OF SCIENTIFIC RESEARCHES AND ACCESS TO THEIR RESULTS

Sergio Bartole

Emeritus Professor of Constitutional law, University of Trieste

First of all let me thank Sabina Passamonti for her kind invitation to open this interesting meeting. I am a lawyer, an old professor of constitutional law, I am not familiar with the matter of the today agenda, but I understand the importance of innovations in the field of the transcare. You can ask the reason of my presence here for some introductory remarks about the calling of this conference. I'll try to say something about this possible, justified question, answering to the doubts you can have about my intervention.

Which are the purposes of this meeting? If I want to summarize these purposes according to the point of view of a jurist, I can say that it is an exercise of democracy and transparency. Everything started when the organizers obtained a substantial financial public contribution to make some interesting scientific researches with the cooperation of some foreign neighbouring Universities and with the support of departments of the University of Trieste. At the end of the exercise they have thought that the public support to their scientific exercise requires that they offer to the attention of the concerned people a report about the results they got and the modalities of their use of the public money. Their decision deserves our appreciation.

We as citizens of the Italian Republic are frequently upset by information of all the media about political and legal scandals originated by the bad use of the public money, bad use that very often implies the obvious silence of the public actors who avoid to give information concerning the destination of the public money whose administration they are entrusted with. I am not speaking only about information which has to be given to the authorities which administer the sources of the public financial contributions, but I am also talking about the exercise of democracy which implies that results and modalities of the use of public money are made known to the general citizenry. All public resources have the same origin, that is the taxes which are paid by all the citizens who have – therefore – the right to be informed about the use of the public money. The calling of this public meeting or conference is a correct solution in view of the compliance with the principle of openness and transparency by its organizers who are at the same time the scholars

who got the public financial support and had the responsibility of its correct administration. Not only the authorities who decided and assigned the contribution to the program of researches submitted to their attention by Sabina Passamonti and her colleagues, have the occasion to be informed about the matter of the conference, but also every interested citizen is, therefore, in the position of receiving an information about the use of the public financial support. The exigency of a public accountability is satisfied from both the points of view. There is an old political principle according to which " no taxation without representation ", the philosophy which stays behind this meeting, is a consequence of that principle which requires the circulation of information about the use of the income of the taxes. The public authorities and the people who got a public financial contribution in the frame of the public budget have to report to the citizenry.

But there is also another aspect of the present initiative which deserves special attention. This meeting is not only the occasion for a report about the administrative and financial accountability which the administration of public money implies, it has also a scientific dimension which has to be underlined. If the final destination of the administrative and financial report are the public authorities which gave their support to the researches we are dealing with, public authorities which are – therefore – put in the position of answering to political requests concerning their accountability in the matter, submitted by the citizens in general, the scientific dimension of this meeting offers to all the interested persons the necessary information about the important results of the researches supported with public money in the field of innovations affecting the transcare.

The Universities and their scientific departments are not always conscious of the importance of the spreading of the information concerning their researches. The results which they get have certainly a peculiar relevance in the frame of the circuit of the scientific knowledge, but they cannot be kept in the cupboards of the departments, their information has to reach also the public opinion in general.

The existence and the development of a modern society depends on the possibility of having knowledge of the status of the scientific researches and on the fruition of their results. We have to keep in mind that not only important steps of the Public Administration can be taken if the authorities have knowledge of the scientific novelties, but also useful progresses can be made by private enterprises when they take profit from those novelties. When the State or a Region – as it happened in our case – give financial support to a research, they have to plan their intervention looking to the future fruition of the results both by the public authorities and by the private operators. And obviously private enterprises and organization depend on the circulation of the information about the results of the researches. The contribution of the public authorities to the economic, social and cultural developments of the Country is accomplished not only when those authorities give financial support to the researches but also when the spreading of the relevant information is insured. Even the financial support given to the organization of a meeting similar to our today meeting is part of the public engagements in the field of the scientific researches.

Where is the connection between these reasoning and the law? Why do I introduce it under the cover of my legal specialization? You certainly realize that the idea of a reporting by organizations which got a public financial support, is an epiphany of the doctrine of democracy. Those organizations are due to offer evidence about the administration and the use of public money, not only as far as their accountability is at stake but also with regard to the exigency of giving to the public authorities, which supported the researches, elements in view of their accountability to the public opinion. Actually there are two different points of view of looking at the justification of this meeting. The first one regards the relation between the researchers who got the financial help and the public authorities, the another touches the relation between the public authorities and the citizenry in general. But the principles of the today public administration offer new food for thinking beyond the mere elaboration of the doctrines of democracy.

If you look at the Charter of the fundamental rights of the European Union you can read at art. 42 that all citizens of the Union or any person residing in one of the member States of the Union has the right to the access to the documents of the authorities of the Union, that is the Parliament, the Council and of the Commission. This article is certainly the fruit of the elaboration of the principles of the democratic government. Moreover its importance derives from the fact that it establishes a more direct link between that doctrine and the status of the citizens. Everybody has the possibility of having access both to the decision-making processes of the public authorities and to the documents which give evidence of the results of this processes.

Organizing these meeting is a way of satisfying the principles and the exigencies which stay behind art. 42 as far as it is a way of anticipating the requests of the people interested to the researches which are at the centre of the today agenda. The presentations which are provided for, will offer those elements of knowledge which could otherwise be obtained through the exercise of the right of access. The actors of the scientific researches implement by themselves the transparency that the interested people are allowed to require on the basis of the legal regulations actually in force.

CONTACTS

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HOW CAN WE ATTRACT MORE INVESTMENTS FOR RESEARCH AND INNOVATION IN THE MEDICAL DEVICE SECTOR?

Paolo Gazzaniga & Vera Codazzi

Assobiomedica, Milano (Italy).

INTRODUCTION

Both healthcare and medical device sectors might offer important opportunities for economic growth.

Here we try to focus on some actions able to enhance the competitiveness of a territory to attract investments not only from companies but also from the European Community (concerning Horizon 2020 R&I grants).

THE GOVERNANCE OF HEALTHCARE RESEARCH

Despite all inter-regional and infra-regional diversities, the Italian healthcare system can be placed among the most advanced in the world thanks to high level skills and technologies. Given that, Italian medical class's excellence is a key factor that should be fostered to: 1) develop and manage research projects at European level; 2) provide companies with services as for R&D, technology transfer and clinical trials.

As investments in research and innovation bring several benefits, many countries struggle to attract them (i.e. such funds) and the competition is getting higher and higher. In Italy the main obstacle is the fragmentation of dedicated initiatives and activities. This situation doesn't allow to get the best from the available resources.

To improve research and industry interactions, some aspects should be addressed and reshaped.

In Italy, for example, it still lacks an organised database collecting information about research projects and activities of national laboratories (and researchers): an online tool that industry could easily query to find the right scientific partner. Firms have been feeling this need for many years and they might get an answer from several sources. These ones are too many, partial and do not talk to each other so they do not represent a real help for industry needs. Another concrete

example is represented by biobanks. In Italy we don't have a national register of all samples which could help firms as well as public decision-makers.

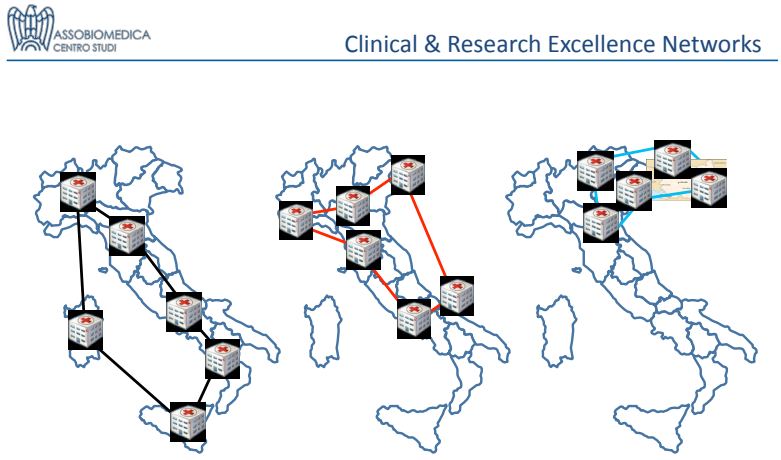
A national database is needed, collecting all information about healthcare and technological research. The more it will be developed from industry need, the more suitable it will be. Industry, through trade associations, should do the same developing an online register of firms that invest in R&D and production. This would be really precious for technology transfer offices and for partner identification. Here again some similar tools already exist, but they are incomplete, little known and even less used.

NETWORKS OF SPECIALIST EXCELLENCE

Many high technology "macro-architectures" will arise in the near future bringing away more and more investments opportunity to individual operators or regions not belonging to such architectures. Strategically the shift from the "micro-competitive" logic to a "collaborative system" logic, based on centres of excellence, should represent the right answer. In practical terms, specific "networks" would arise around an expertise, bringing together all the best operators. These networks would have several advantages.

a. They would avoid the dispersion of resources at regional and national level, improving the Italian healthcare research from a qualitative point of view.
b. They would foster Italian centres in catching opportunities from European programmes and from private funding.
c. As technological platforms they would represent the ideal partners for all firms seeking specific skills.

Italy can easily create such networks. Existing ones would enlarge comprising other centres to foster their competitiveness. At the same time, new networks should be created around each branch of medical technology in which Italy has real strengths.



TECHNOLOGY TRANSFER

The "science and technology park" (STP) concept arose from the need of firms and research laboratories to interact early in the planning of their activities, to collaborate at R&D stage and then at technology transfer level. This is a key point, but still tends to be underestimated in Italy. R&D and technology transfer cannot be "switched on" occasionally. as they are much more effective if reflecting a continuous relationship between industry and research centres, that lead to a productive cross-fertilisation.

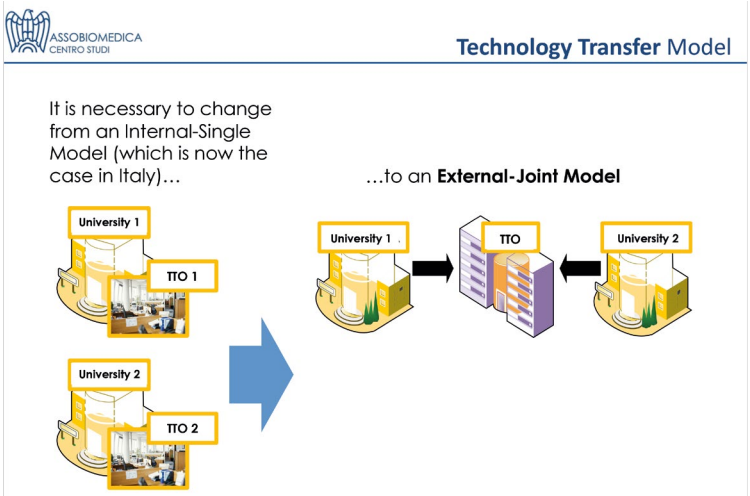
Unfortunately within STPs industry and research have only weak relationship. It might be useful the renovation following the same mood of excellence network creation.

In Italy university technology transfer offices (TTOs) have had a role more cultural than practical. Their effort to promote and develop interactions with industry has been creating only modest results. This is supported by a study, published by Assobiomedica (F. Brescia in Assobiomedica 2014[1])about the 200 best performer TTOs in the world, none of which is Italian.

Among the reason we can quote:

1. Several local initiatives do not allow an optimal allocation of resources. Available resources (including necessary technical, legal, economic and financial skills) are strictly limited, so their use should be concentrated and not dispersed.
2. Most university TTOs are located in department that deals with different matters (the Medicine TTOs is an exception). This kind of TTO faces obvious difficulties:, they could have a lack of knowledge in some particular field and so they couldn't be able to match an innovation with the right industry's need. As a result many TTOs loses reliability towards the university itself and the extern.

About life science world, a national TTO dedicated to healthcare technologies, connected with any faculties and other research centres, should be the answer to those problems. Actually, something has been moving towards such a direction, but the most has yet to come.



Source: Brescia F. (2014), Modelli organizzativi di trasferimento tecnologico, Centro Studi Assobiomedica, Temi di discussione N.15, Aprile 2014

1 → Assobiomedica, Temi di discussione n. 15, Modelli organizzativi di trasferimento tecnologico, Aprile 2014.

SERVICES FOR CLINICAL TESTING

In Italy, industry invests a little in pre-marketing or post-marketing clinical testing if compared to what national health service (NHS) can offer. Maybe the reasons are costs (greater than in the emerging countries), and above all a lack of organisation in the system. This leads to less resources for the NHS even if Italy will be still competitive in this area.

NHS potential has to be promoted to attract greater investment in clinical testing from both Italian manufacturers and foreign ones. To move in this direction timings, clinical protocols applications and reimbursement rates applied by local Ethics Committees should reach a standard.

CONTACTS

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TRANS2CARE LEGACY

>> 01.10.2014 - 31.12.2016

EMPLOYMENT OF TRANS2CARE RESEARCHERS

Half of the budget was targeted to upskilling the team of researchers. Effect: For 18 months after the end of the project, 100% of researchers have been employment in R&D sector. Most (86%) were retained in the Programme Area. They will give a valuable contribution to future cross-border collaboration.

Work-life balance of Trans2Care Researchers

The team of Researchers had a mean age of 31 at the start of their contract in Trans2Care project. Females outnumbered males (10 vs. 4). Note that the contract was attractive: 36-months duration, 90.000 € allocated in the budget, thus there was no income-related gender bias.

Six out of 14 Researchers were married before the project. Three Researchers got married during the project.

Five researchers (4 mothers and 1 father) had one child and one researchers (mother) had two children before starting the project. Three Researchers (2 mothers and 1 father) had their first baby and two (one mother and one father) had their second child during the project: so five babies have born during the project, and one more was in gestation. These happened at five different Partners.

A MULTIMEDIA SET OF TOOLS TO EASE RESEARCH-INDUSTRY DIALOGUE

One fifth of the budget was for linking researchers with industry. The project has made public all is needed for activating technology transfer:

1. Technology Readiness Levels Guidelines available in the project's website (http://www.trans2care.eu/Sections.aspx?section=588.591).
2. Technology Readiness Levels analysis of cross-border biomedical community in the capitalisation Conference CROSS-BORDER ITALY-SLOVENIA BIOMEDICAL RESEARCH: ARE WE READY FOR HORIZON 2020? (Trieste, 27.02.2014, http://www.trans2care.eu/Sections.aspx?section=510.595).
3. Book CROSS-BORDER ITALY-SLOVENIA BIOMEDICAL RESEARCH: ARE WE READY FOR HORIZON 2020? CONFERENCE PROCEEDINGS with an analysis of innovation management and knowledge transfer potential for a smart specialization strategy (ISBN 978-88-8303-572-2).
4. What is innovation? Powerpoint presentation for rapid understanding of TRL in the innovation ecosystem (http://www.slideshare.net/trans2care/what-is-innovation-answers-for-academic-researchers).
5. A more expanded description of the dynamic use of Technology Readiness Levels is below.

A WORKING TOOL TO ENGAGE IN INNOVATION

What is innovation?

Innovation is a long process, leading an idea to reach the market, i.e. that great space where citizens, institutions, and any other kind of social entity, can find solutions for their needs. The process is at risk of interruption. Even if this occurs at an early stage, the waste of resources and opportunities is substantial. This can be avoided by learning what is innovation, identifying the risks and managing the successful maturation of ideas into something useful.

To make researchers familiar with this issue, we have developed a simple mental pattern for self-managing one's research activities, so to give one's results a chance to be exploited.

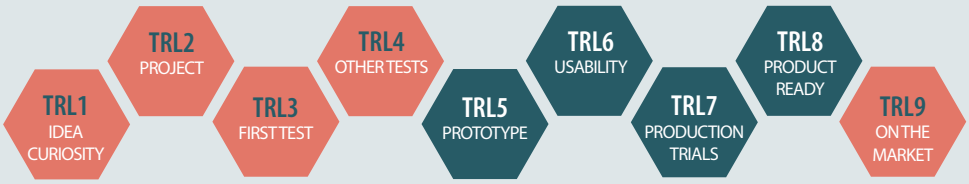
The mental pattern is:

1. Use the Technology Readiness Levels scale.
2. Understand three main models of Research & Innovation:
   - academic waltz
   - academic tango
   - academic leap dance
3. Identify and involve the most suitable financial instruments and the industrial/social partners to take your results to a more advanced level of technology readiness.

Flash description of the Technology Readiness Levels scale.

The TRL scale features the stages that any given idea can or must reach, before being transformed into a useful product (or service or process). The TRL scale can be applied to any kind of idea or technology or market.

Fig. 1 associates each TRL with a simple functional label.



Knowledge transfer bottlenecks

In general, actors of an innovation ecosystem span accross a limited number of Technology Readiness Levels (TRL): sector specialisation tends to keep workers in limited TRL domains, irrespective of the specific technology. In general, workers specialised in TRL 1-3, e.g. academic researchers, and TRL 7-9, e.g. industry and business managers, do not communicate enough.

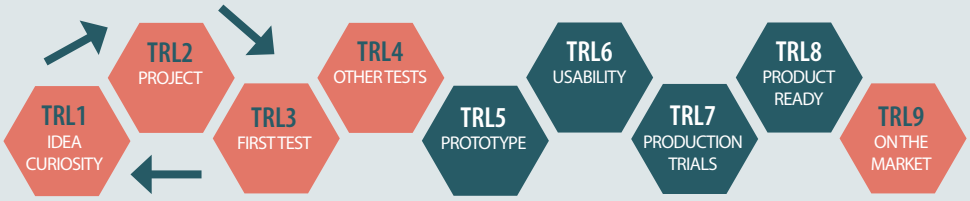
Surprisingly, lack of interaction involves even specialists of adjacent TRLs, such as those doing applied research and producing TRL 4 outputs, and those acting in R&D industrial laboratories (TRL 5).

The challenge is therefore to maintain significant transfer of knowledge and feed-back responses across TRLs.

Model 1 of Research & Innovation: the academic waltz

Most researchers in public institutions turn around Technology Readiness Level 1-2-3, but rarely attain level 4. Rather, there is the tendency to loop back to a new idea (i.e. TRL 1) and re-start the project (TRL 2) to first results (TRL 4) cycle.

>> The Academic Waltz TRL 1-2-3



This is because the academic research communities include large number of unskilled trainees, i.e. students; the research outputs are theses and academic publications. The obligation for the students is to do original work. That's why academic professors, who are their supervisors, start from brand new ideas so often.

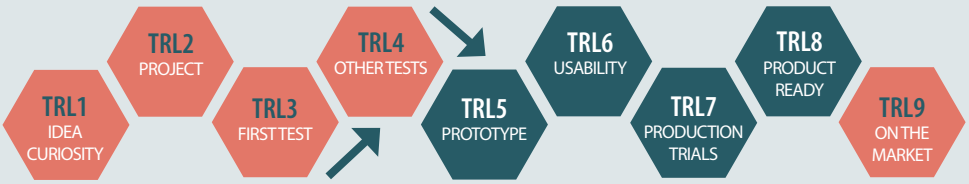
It's clear that lack of skilled researchers, fully devoted to laboratory or fieldwork, is the main cause for not attaining the stage of TRL 4 in an academic environment. Undefined research programmes and undetailed calls for research grants have contributed to this situation.

The drawback of the academic waltz is double-sided. Firstly, research results are not refined by multiple testing, thus cannot attain the level to be published in top scientific journals, unless the principal investigator is well positioned in a certain discipline, can establish trans-disciplinary collaborations, at attain a certain reputation. Secondly, these research results do not attain a readiness level of some practical interest for the industry. The industry cannot invest in completing some work that had been left unaccomplished in academia.

Model 2 of Research & Innovation: the academic tango

Research activities that are "pushed" towards developing products up to TRL 4 and 5, have of course higher probability of being taken by industrial developers. The scheme above is a simplistic one: a product having TRL 4 might be developed in various prototypes.

>> The Academic Tango TRL 3-4, 4-5



As said above, academic laboratories may be neither equipped nor staffed (nor motivated, nor rewarded by academic evaluation indicators) to engage in activities aimed at developing serial tests and prototypes. In facts, these technical activities are not specifically framed in the institutional mission of universities, which is to generate new knowledge (precisely TRL 1 to TRL 3) and educate the youth to be responsible and expert citizens (these are dimensions of social innovation).

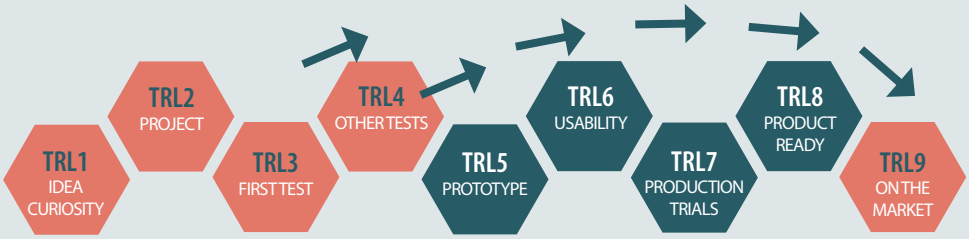
However, the institutional mission of Universities is to be active in knowledge transfer towards other regional and national institutions, which realises the so-called third mission of universities. Thus, Universities should develop strategic relationships with public and private laboratories, where good ideas, having had a sound, yet preliminary demonstration, could be further validated and developed to TRL 4 and 5.

The point for Universities is therefore to invest in knowledge transfer, developing communication and mediation skills, together with a professional empathy for the business environment.

Model 3 of Research & Innovation: the academic leap dance

If knowledge transfer techniques are accurately thought and developed, the possibilities to engage any actor outside academia, e.g. subjects working in business, in the government, in public institutions, and so on, are vast.

>> The Academic Leap dance TRL 3 to 9



Research & Innovation in EUROPA 2020

Doing research planning and development with citizen, associations, social innovators

Knowledge transfer is simply synonymous of culture, i.e. the result of having transformed pieces of knowledge in a bigger picture, in which everybody can find himself or herself. Without this leap, it will be impossible to gain better living conditions, which depends of good technology, because the innovation chain will be interrupted.

A model for territorial cooperation in biomedical Research&Innovation

The project has attracted strong interest from various bodies, as listed in Table 10.
In general, the committment of a network of universities in developing technological innovations from the stock of their own scientific results is an innovation itself. Moreover, the training scheme of post-doctoral researchers and their active involvment in every step of the project's ctycle has also been taken as a best practice example.

Table 9 - List of invitations to present Trans2Care as a best practice.

When	Where	Venue	Event	Invitation by	Target group	Message
14.11.2014	Trento (Italy)	Fondazione Bruno Kessler	Conference "Scienza genere e società" (Science, gender and society)	Scientific committee of Associazione Donne & Scienza	Women in science	Overview of Trans2Care and of its position paper "Cohesion Policy 2014-2020: how much will gender issues matter?"
17.11.2014	Brussels (Belgium)	Committe of Regions	Kick-off meeting del Progetto Horizon 2020 RegHealth-RI	Coordinator of Reg Health-RI project (Horizon 2020)	Partners and officer of RegHealth-RI	Presentation of the project activities and results; solutions to drive researchers towards innovation (TRL tool).
11.12.2014	Aviano-Pordenone (Italy)	Centro di Riferimento Oncologico	CRO meets industry 2014	Scientific director of CRO	Industry and researchers	Presentation of the project activities and results
11.12.2014	Ljubljana (Slovenia)	Faculty of Medicine	Lecture	PhD school coordinator (university professor)	Students of graduate school of biomedicine	Presentation of the project activities and results; solutions to drive researchers towards innovation (complementary training and contacts with industries).
10.06.2015	Ljubljana (Slovenia)	Faculty of Medicine	Pharmacogenomics workshop and presentationo of Artemida project proposal (Horizon 2020-teaming)	PhD school coordinator (university professor)	Students of graduate school of biomedicine; staff of the medical faculty.	Presentation of the project activities and results; solutions to drive researchers towards innovation (complementary training and contacts with industries).
18.06.2015	Udine (Italy)	Università di Udine	Annual meeting of the Italian Group of Biomemrbane and Bioenergetics	Scientific board of the Italian Group of Biomemrbane and Bioenergetics	Academic researchers	Presentation of the project activities and results; solutions to drive researchers towards innovation (complementary training and contacts with industries).

When	Where	Venue	Event	Invitation by	Target group	Message
07.07.2015	Vienna (Austria)	Austrian Federal Ministry of Science, Research and Economy	Danube S3 Workshop: "Gathering opportunities around RIS3 priorities", organizzato da DG JRC IPTS (Seville) S3 Platform	European Commission, DG JRC-IPTS, Seville (Spain)	Invited coordinators of benchmark projects; officers of managing authorities; public authorities	Presentation of the project activities and results; solutions to drive researchers towards innovation; how to manage a successful project. Web: http://s3platform.jrc.ec.europa.eu/s3-in-danube-vienna-2015
07.09.2015	Ancona (Italy)	Università Politecnica delle Marche	International Conference of AdriHealthMob project (IPA-Adriatic)	Rector of Università Politecnica delle Marche, Partner of AdriHealthMob project	Invited coordinators of benchmark projects; officers of managing authorities	Trans2care training to promote knowledge & technology transfer in biomedical research. Web: http://adrihealthmob.eu/docs/project-documents-output/international-conference-quality-of-life-technology-good-practices-and-funding-opportunities
15.09.2015	Esch-sur-Alzette (Luxembourg)	Maison du Savoir-Université du Luxembourg	Interreg Annual Meeting 2015	European Commission, DG Regio	Interreg Managing Authorities	Presentation of Trans2Care tool (a deck of cards) to drive researchers activities towards innovation value chain. Web: http://ec.europa.eu/regional_policy/en/conferences/interreg25/
30.09.2015	Gorizia (Italy)	Auditorium della cultura friulana	DG REGIO Road show-Celebrations INTERREG 25 YEARS	Regione Autonoma Friuli Venezia Giulia	Invited coordinators of benchmark projects; public authorities	How Trans2Care removed obstacles to cross-border collaboration. Web: http://www.ita-slo.eu/notizie_ed_informazioni/notizie/2015100514595341/ . Presentation: http://www.slideshare.net/trans2care/presentations
27 -28.10.2015	Ulm (Germany)	Basteistra§e 40, Ulm, Germany	Annual Event on the Scientific Support to the Danube Strategy 2015	European Commission, DG JRC, Ispra (Italy)	Invited experts	How to design and implement a project in the field of blue growth and in-land water (Trans2Care experience spilled-over into Innov-H2O project). Web: https://ec.europa.eu/jrc/en/event/conference/jrc-annual-event-scientific-support-danube-strategy
15.11.2016	Trieste (Italy)	Area Science Park, Trieste	BILATERAL MEETING ITALY SLOVENIA ON THE ROLE OF RESEARCH IN THE SOCIETY	Rector of University of Trieste	The Ministries of Resesarch and Education of Italy and Slovenia, and researchers.	How the research on the pharmacology of dietary flavonoids has become a cross-disciplinary endevour involving Italian and Slovene Partners and a number of funding sources.

Table 10 - List of mentions of Trans2Care as a best practice.

When	Who	Source	Document	Author	Target group	Message
2015	Steinbeis Europa Zentrum.	DanuBalt Project website. Details: Cordis project's ID 643738. Topic: HCO-14-2014 - Bridging the divide in European health research and innovation.	Working paper "Health Innovation Enablers: Foundations for sustainable investment in modest and moderate innovator regions"	Jonathan Watson, Health Clusternet, UK.	Partners and stakeholders of DanuBalt project	Trans2Care solutions to address "Challenges in reducing the health innovation divide" (web: http://danubalt.eu/wp-content/uploads/2016/05/Health-Innovation-Enablers_Working-Paper-1_v3.pdf, pagse 7-8 of working paper).
2016	European Commission DG Research & Innovation	DG Research & Innovation website	Publication on Synergies between the Framework Programme and ESIF "EU funds working together for jobs & growth", 2016. ISBN: 978-92-79-57739-0 DOI: 10.2777/678944.	"European Commission. Directorate-General for Research and Innovation. Directorate B – Open Innovation and Open Science. Unit B.5 – Spreading excellence and widening participation.	Applicants to Horizon 2020 and ESIF	"Trans2Care prepares researchers through focused training to compete inHorizon 2020" (page 21).
2016	European Commission DG Regional Policy	DG Regional Policy website	Projects database (web: http://ec.europa.eu/regional_policy/en/projects/europe/trans2care-improving-healthcare-through-collaborative-innovation)	"European Commission, Directorate-General for Regional and Urban Policy.	General public	"Trans2Care: improving healthcare through collaborative innovation".

APPENDIX

SCIENTIFIC PUBLICATIONS

LP – SABINA PASSAMONTI, JOVANA ČVOROVIĆ, LOVRO ŽIBERNA

ARTICLES

1. Martelanc, M., Žiberna, L., Passamonti, S., Franko, M.
   Direct determination of free bilirubin in serum at sub-nanomolar levels
   (2014) Analytica Chimica Acta, 809, pp. 174-182.
   http://www.scopus.com/inward/record.url?eid=2-s2.0-84891947189&partnerID=40&md5=f2a4663481f956eb2f76b4102e60bb24

2. Ziberna, L., Fornasaro, S., Čvorović, J., Tramer, F., Passamonti, S.
   Bioavailability of Flavonoids: The Role of Cell Membrane Transporters
   (2013) Polyphenols in Human Health and Disease, 1, pp. 489-511.
   http://www.scopus.com/inward/record.url?eid=2-s2.0-84902570798&partnerID=40&md5=842eb80deedab7365efa7a2bc36c80b3

3. Ziberna, L., Kim, J.-H., Auger, C., Passamonti, S., Schini-Kerth, V.
   Role of endothelial cell membrane transport in red wine polyphenols-induced coronary vasorelaxation: Involvement of bilitranslocase
   (2013) Food and Function, 4 (10), pp. 1452-1456. Cited 1 time.
   http://www.scopus.com/inward/record.url?eid=2-s2.0-84884798409&partnerID=40&md5=b255534bc899197e2a9e5663d8741545

4. Jenko-Pražnikar, Z., Petelin, A., Jurdana, M., Žiberna, L.
   Serum bilirubin levels are lower in overweight asymptomatic middle-aged adults: An early indicator of metabolic syndrome?
   (2013) Metabolism: Clinical and Experimental, 62 (7), pp. 976-985. Cited 8 times.
   http://www.scopus.com/inward/record.url?eid=2-s2.0-84879552117&partnerID=40&md5=8141f36329d4c32fe62796d0e73604fd

5. Ziberna, L., Lunder, M., Tramer, F., Drevenšek, G., Passamonti, S.
   The endothelial plasma membrane transporter bilitranslocase mediates rat aortic vasodilation induced by anthocyanins
   (2013) Nutrition, Metabolism and Cardiovascular Diseases, 23 (1), pp. 68-74. Cited 6 times.
   http://www.scopus.com/inward/record.url?eid=2-s2.0-84872682955&partnerID=40&md5=4dd49ff1f55cfab8dade6dfedbf1303d

6. Bornsek, S.M., Ziberna, L., Polak, T., Vanzo, A., Ulrih, N.P., Abram, V., Tramer, F., Passamonti, S.
   Bilberry and blueberry anthocyanins act as powerful intracellular antioxidants in mammalian cells
   (2012) Food Chemistry, 134 (4), pp. 1878-1884. Cited 12 times.
   http://www.scopus.com/inward/record.url?eid=2-s2.0-84861576692&partnerID=40&md5=499377dca7cfde9fe7d7a91cb47f3f95
   DOCUMENT TYPE: Article

7. Tramer F, Moze S, Ademosun AO, Passamonti S, Cvorovic J.
Dietary Anthocyanins: Impact on Colorectal Cancer and Mechanisms of Action. Colorectal Cancer – From Prevention to Patient Care, Dr. Rajunor Ettarh (Ed.), ISBN: 978-953-51-0028-7, InTech 2012 ISBN: 978-953-51-0028-7, InTech

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1. M. Martelanc, T. Radovanović, M. Liu, P. Likar, L. Žiberna, M. Klemenc. S. Passamonti, M. Franko. Assessing biomarkers in biological fluids by thermal lens spectroscopy coupled with HPLC or microfuidic lab-on-chip technologies. 6th Central European Conference "Chemistry towards Biology", Trieste - Italy, September 10 - 13, 2013 (poster).
2. A. Petelin, Z. Jenko-Pražnikar, M. Jurdana, M. Čemažar, M. Martelanc, M. Franko, M. Silvestrini, P. Ugo, L. Žiberna, S. Passamonti, SERUM BILIRUBIN AS A BIOMARKER OF CARDIOVASCULAR PRE-DISEASE STATES: FROM ANALYTICAL APPROACHES TO CLINICAL VALUE, 6th Central European Conference "Chemistry towards Biology", Trieste - Italy, September 10 - 13, 2013 (poster)
3. M. Silvestrini, P. Ugo, L. Žiberna, S. Passamonti, L. De Leo, T. Not, M. Martelanc, M. Franko, SENSITIVE MOLECULAR DIAGNOSTICS WITH ELECTROCHEMICAL BIOSENSORS AND ENSEMBLES OF NANOELECTRODES, 6th Central European Conference "Chemistry towards Biology", Trieste - Italy, September 10 - 13, 2013
4. M. Silvestrini, P. Ugo, L. De Leo, T. Not, L. Žiberna, S. Passamonti, M. Martelanc, M. Franko, SENSITIVE MOLECULAR DIAGNOSTICS WITH ELECTROCHEMICAL BIOSENSORS AND ENSEMBLES OF NANOELECTRODES, workshop: Medicine for Nanotechnologies - Nanotechnologies for Medicine, NanotechItaly 2013, Venezia Mestre - Italy, November 29, 2013. Abstract in conference proceedings ISBN 978-88-6140-152-5

PP1 – MARJANA NOVIČ, KATJA VENKO

ARTICLES

1. Venko, K., Župerl, S., Novič, M.
Prediction of antiprion activity of therapeutic agents with structure-activity models (2014) Molecular Diversity, 18 (1), pp. 133-148.
http://www.scopus.com/inward/record.url?eid=2-s2.0-84894069051&partnerID=40&md5=1757ddc5889f93cb60e1b80305fb31ca
2. MARTINČIČ, Rok, VENKO, Katja, ŽUPERL, Špela, NOVIČ, Marjana. Chemometrics approach for the prediction of structure-activity relationship for membrane transporter bilitranslocase, SAR and QSAR in Environmental Research 2014
3. STOPAR, Katja, ŽUPERL, Špela, NOVIČ, Marjana. Uporaba nevronskih mrež za iskanje povezav med kemijsko strukturo in biološko lastnostjo učinkovin z antiprionsko aktivnostjo = Artificial neural networks application for searching of correlation between chemical structure and biological property of therapeutics with antiprion activity. In: KRAVANJA, Zdravko (ed.), BRODNJAK-VONČINA, Darinka (ed.), BOGATAJ, Miloš (ed.). Slovenski kemijski dnevi 2012, Portorož, 12.-14. september 2012 = Slovenian Chemical Days 2012, Portorož, September 12-14, 2012. Maribor: FKKT

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1. MARTINČIČ, Rok, VENKO, Katja, ŽUPERL, Špela, NOVIČ, Marjana. QSAR models for membrane transporters : a case study on bilitranslocase. V: 16th International Workshop on Quantitative Structure-Activity Relationship in Environmental and Health Sciences, Milan, 16 - 20 June, 2014. BENFENATI, Emilio (ur.). Scientific programme & book of abstracts. Milan: [s. n.], 2014, str. 177.
2. VENKO, Katja, ŽUPERL, Špela, NOVIČ, Marjana. The most influent chemical structure features for rational drug design of prion disease therapeutics. In: 38th FEBS Congress, Saint Petersburg, Russia, July 6-11, 2013. Abstracts, (FEBS journal, ISSN 1742-464X, Vol. 280, iss. suppl. s1). Oxford: Blackwell, 2013, pp. 364
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4. ŽUPERL, Špela, VENKO, Katja, NOVIČ, Marjana. A data-driven model for the prediction of antiprion activity. In: Conferentia chemometrica 2013 : Sopron, September 8-11, 2013. Budapest: Hungarian Chemical Society, 2013, pp. P27
5. VENKO, Katja, ŽUPERL, Špela, FJODOROVA, Natalja Stanislavovna, NOVIČ, Marjana. In silico študija toksičnosti potencialnih terapeutikov za prionske bolezni. V: KRAVANJA, Zdravko (ed.), et al. Zbornik povzetkov referatov s posvetovanja. Maribor: FKKT, 2013, pp. 56.
6. ŽUPERL, Špela, PETELIN, Ana, JENKO PRAŽNIKAR, Zala, VENKO, Katja, ČEMAŽAR, Maja, NOVIČ, Marjana. Interakcije med genskimi polimorfizmi ter vnosom živil. In: KRAVANJA, Zdravko (ed.), et al. Zbornik povzetkov referatov s posvetovanja. Maribor: FKKT, 2013, pp. 70.
7. STOPAR, Katja, ŽUPERL, Špela, NOVIČ, Marjana. The development of QSAR model for anti-Prion activity prediction of therapeutic agents. In: MARAN, Uko (ed.). 15th International workshop on quantitative structure-activity relationships in environmental and health sciences , June 18-22, Tallinn, Estonia: scientific programme & book of abstracts. Tallinn, 2012, pp. 157.
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PP2 – GIUSEPPE LEGNAME, MAURA BARBISIN

ARTICLES

1. Barbisin, M., Vanni, S., Schmädicke, A.-C., Montag, J., Motzkus, D., Opitz, L., Salinas-Riester, G., Legname, G.
   Gene expression profiling of brains from bovine spongiform encephalopathy (BSE)-infected cynomolgus macaques (2014) BMC Genomics, 15:434.
   http://www.scopus.com/inward/record.url?eid=2-s2.0-84902366261&partnerID=40&md5=dce8bd967150fdf2cf9386b66d492062

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1. M. Barbisin, Diet and health: from prevention to therapy-Nutraceuticals in neurodegenerative diseases. Visit of Druga Gimnazija Maribor-International Baccalaureate Program students (4 June 2012, University of Trieste).

2. Maura Barbisin, Silvia Vanni and Giuseppe Legname. Whole transcriptome analysis of animal models of prion disease. 6th SISSA/ELETTRA PRION Research WORKSHOP (10-11 January 2013, SISSA Trieste)

3. M. Barbisin, Gene expression profiling of BSE-infected macaques. Molecular Tools to Study Neurodegeneration workshop (19 September 2013, SISSA Trieste).

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1. Ann-Christin Schmädicke, Maura Barbisin, Dirk Motzkus, Lennart Opitz, Lisa Gasperini, Gabriela Salinas-Riester, Silvia Vanni, and Giuseppe Legname. Whole transcriptome analysis in brains from BSE-infected macaques. Prion 2012, Amsterdam, The Netherlands. May 8-12, 2012.
2. Maura Barbisin, Silvia Vanni and Giuseppe Legname. Novel markers for neurodegeneration, Cross-border Italy-Slovenia biomedical research: Are we ready for Horizon 2020? Trieste – Italy, February 27, 2014.
3. Barbisin M, Vanni S, Schmädicke AC , Montag J, Motzkus D, Opitz L, Salinas-Riester G, Legname G.
   Gene expression profiling of brains from bovine spongiform encephalopathy (BSE)-infected cynomolgus macaques. Prion 2014, Trieste, Italy. May 27-30, 2014.
4. Barbisin M, Xerxa E, Chieppa MN, Krmac H, Vatta P, Vallino Costassa E, Gallo M, Casalone C, Simmons M, Legname G, Corona C. Transcriptome analysis by microarray and RT-qPCR of blood from BSE-infected cattle. Prion 2014, Trieste, Italy. May 27-30, 2014.

PP3 – MLADEN FRANKO, MITJA MARTELANC

ARTICLES

1. Martelanc, M., Žiberna, L., Passamonti, S., Franko, M.
   Direct determination of free bilirubin in serum at sub-nanomolar levels
   (2014) Analytica Chimica Acta, 809, pp. 174-182.
   http://www.scopus.com/inward/record.url?eid=2-s2.0-84891947189&partnerID=40&md5=f2a4663481f956eb2f76b4102e60bb24
   DOCUMENT TYPE: Article

2. RADOVANOVIĆ, Tatjana, LIU, Mingqiang, LIKAR, Polona, KLEMENC, Matjaž, FRANKO, Mladen
   Microfluidic flow injection analysis with thermal lens microscopic detection for determination of NGAL. International journal of thermophysics, ISSN 0195-928X, 8 str., doi: 10.1007/s10765-014-1699-9.

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3. M. Silvestrini, P. Ugo, L. Žiberna, S. Passamonti, L. De Leo, T. Not, M. Martelanc, M. Franko, SENSITIVE MOLECULAR DIAGNOSTICS WITH ELECTROCHEMICAL BIOSENSORS AND ENSEMBLES OF NANOELECTRODES, 6th Central European Conference "Chemistry towards Biology", Trieste - Italy, September 10 - 13, 2013

4. M. Silvestrini, P. Ugo, L. De Leo, T. Not, L. Žiberna, S. Passamonti, M. Martelanc, M. Franko, SENSITIVE MOLECULAR DIAGNOSTICS WITH ELECTROCHEMICAL BIOSENSORS AND ENSEMBLES OF NANOELECTRODES, workshop: Medicine for Nanotechnologies - Nanotechnologies for Medicine, NanotechItaly 2013, Venezia Mestre - Italy, November 29, 2013. Abstract in conference proceedings ISBN 978-88-6140-152-5.

5. M. Martelanc, T. Radovanović, M. Liu, P. Likar, L. Žiberna, M. Klemenc. S. Passamonti, M. Franko. Assessing biomarkers in biological fluids by thermal lens spectroscopy coupled with HPLC or microfuidic lab-on-chip technologies. 6th Central European Conference "Chemistry towards Biology", Trieste - Italy, September 10 - 13, 2013 (poster).

PP4 – CATERINA BORGNA, ALESSANDRO BALDAN

ARTICLES

1. A. Fucili, A. Tarocco, A. Baldan, C. Borgna-Pignatti. Thalassemia and the Earthquake. Thalassemia Reports (2014) [ahead of print]
2. A. Baldan, S. Ferronato, S. Olivato, G. Malerba, A. Scuro, GF. Veraldi, M. Gelati, S. Ferrari, S. Mariotto, PF. Pignatti, S. Mazzucco, M. Gomez-Lira. Cyclooxygenase 2, Toll-like Receptor 4 and Interleukin 1β mRNA expression in Atherosclerotic Plaques of Type 2 Diabetic Patients. Inflamm Res. (2014) DOI: 10.1007/s00011-014-0759-8 [ahead of print]
3. E. Ballardini, A.Tarocco, A. Baldan, E. Antoniazzi, G. Garani, C. Borgna-Pignatti. Universal Cranial Ultrasound Screening in Preterm Infants with Gestational Age 33-36 Weeks. A Retrospective Analysis of 724 Newborns. Pediatr Neurol (2014) [ahead of print]

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1. Conference Paper - Cross-border Italy-Slovenia biomedical research: are we ready for horizon 2020?, A Severe Osteopenia in Adolescence: Poor Bone Health forLife
2. C. Bombieri, F. Belpinati, A. Baldan, A.R.Lo Presti, G. Malerba, S. Accordini, L. Calciano, M. Ferrari, I. Perbellini, P.F. Pignatti, R. De Marco. Association analysis of candidate gene polymorphisms in Asthma, Rhinitis and Chronic Bronchitis: preliminary results from the GEIRD study; (abstract #1052F) Presented at the 63rd Annual Meeting of The American Society of Human Genetics, October 25, 2013 in Boston, MA.
3. S. Tagliati, A. Baldan, A. Brusaferro, D. Saccomandi, C. Malaventura, C. Borgna-Pignatti. Can lactose intolerance modify bone metabolism? Presented at the 2nd International Conference on Nutrition and Growth (N&G), January 30t, 2014 in Barcelona, Spain.
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PP6 – MATJAŽ KLEMENC, POLONA LIKAR

ARTICLES

1. RADOVANOVIĆ, Tatjana, LIU, Mingqiang, LIKAR, Polona, KLEMENC, Matjaž, FRANKO, Mladen Microfluidic flow injection analysis with thermal lens microscopic detection for determination of NGAL. International journal of thermophysics, ISSN 0195-928X, 8 str., doi: 10.1007/s10765-014-1699-9.
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HPLC or microfuidic lab-on-chip technologies. 6th Central European Conference "Chemistry towards Biology", Trieste - Italy, September 10 - 13, 2013 (poster).

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PP7 – PAOLO UGO, MORENA SILVESTRINI

ARTICLES

1. M. Silvestrini, A. Mardegan, R. Kamath, M. Madou, L.M. Moretto, S. Passamonti, P. Scopece, P. Ugo Pyrolyzed photoresist carbon electrodes in aprotic solvent: bilirubin electrochemistry and interaction with electrogenerated superoxide, Electrochim.Acta 147(2014) 401-407 DOI: 10.1016/j.electacta.2014.09.046 (article in journal)

2. M. Silvestrini, A. Mardegan, M. Cettolin, L. Moretto, P. Ugo, P. Scopece, Electroanalytical applications of sensors based on pyrolized photoresist carbon electrodes., in "Sensors" D. Compagnone et al. eds., Lecture notes in Electrical Engineering, Springer Verlag (2015) v. 319, pp 135-139 (ISSN 1876-1100).

3. M. Silvestrini, L. Fruk, L.M. Moretto, P. Ugo, Detection of DNA Hybridization by Methylene Blue Electrochemistry at Activated Nanoelectrode Ensembles, J. Nanosci. Nanotechno., 15 (2014) 1-6. ISSN 1533-4880 (article in journal)

4. M. Silvestrini, P. Ugo, Ensembles of Nanoelectrodes Modified with Gold Nanoparticles: Characterization and Application to DNA-Hybridization Detection, Anal. Bioanal. Chem. 405 (2013), 995-1005. ISSN 1618-2642 (article in journal)

5. M. Silvestrini, L. Fruk, P. Ugo, Functionalized Ensembles of Nanoelectrodes as Affinity Biosensors for DNA Hybridization Detection, Biosens. Bioelectron. 40 (2013), 265-270. ISSN 0956-5663 (article in journal)

6. H. Habtamu, M. Sentic, M. Silvestrini, L. De Leo, T. Not, S. Arbault, D. Manojlovic, N. Sojic, P. Ugo, A Sentitive Electrochemiluminescence Immunosensor for Celiac Disease Diagnosis Based on Nanoelectrode Ensembles, Anal. Chem., 87 (2015) 12080-12087, DOI: 10.1021/acs.analchem5b02801 (article in journal)

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PP10 – VLADKA ČURIN ŠERBEC , UROŠ RAJČEVIĆ

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2. Chemistry Towards Biology
Title: SERUM BILIRUBIN AS A BIOMARKER OF CARDIOVASCULAR PRE-DISEASE STATES: FROM ANALYTICAL APPROACHES TO CLINICAL VALUE
Authors: Ana Petelin, Zala Jenko-Pražnikar, Mihaela Jurdana, Maja Čemažar, Mitja Martelanc, Mladen Franko, Morena Silvestrini, Paolo Ugo, Lovro Ziberna, Sabina Passamonti

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Ministero dell'Economia e delle Finanze

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SLUŽBA VLADE REPUBLIKE SLOVENIJE ZA RAZVOJ IN EVROPSKO KOHEZIJSKO POLITIKO