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# Young European Biotech Network

Newsletter | September 2010

Official newsletter of the Young European Biotech Network (YEBN). Edited by the YEBN communication task group.

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*Dear all,  
this is a month full of news and activities at YEBN.  
First of all the organisation of the soft skills stream at the NatureJobs Career Expo 2010 in London and the next Annual Meeting.  
We recently had the election of a new chairman Hans-Anton Keserue that took the place of Sebastian Olényi.*

*We are paving the way for the year to come with important new initiatives that will be illustrated in the forthcoming issues of the*

*newsletter. Keep yourself updated for the latest news via our website, facebook page and twitter channel, and enjoy the reading of this new issue of YEBN newsletter!*

*Denis Bilotta, Annika Hohendahl, Marie Müller*

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## Breakthroughs in Life Sciences

### Science goes collaborative: Foldit

Years ago the only possible approach in analysing huge amounts of data required large investments in money, people and time. The identification of the 3D structure of a protein for example is a long and complex computation of the energy of billions of folding states. The correct folding (native structure) corresponds to the state of lowest energy, and is different for each protein. Knowing the native structure is fundamental for an effective development of a specific drug, for example when the protein is implicated in a disease. Such time consuming computations are found in other types of analysis, for example

the Search for Extra Terrestrial Intelligences programme (SETI).

### Distributed computing projects

In 1999 the University of California, Berkeley (UCB) launched SETI@home, a software that allows any user to contribute with his/her own computer to the titanic task of SETI programme. What appeared to be an experiment gathers today more than 3 millions of users and more importantly triggered a domino effect that is truly a shift of paradigm in the computational projects. But SETI@home was just the beginning: dozens of projects followed since then, and a common platform for collaborative projects has been released in 2002 under the name of Berkeley

Open Infrastructure for Network Computing (BOINC). Rosetta@home followed in 2005, launched by David Baker and colleagues at the University of Washington in Seattle, allowing users to contribute to Rosetta's project in understanding how exactly an amino acid sequence folds into native and functional protein. Since the software running on BOINC displays the computation process via a screen saver, Rosetta@home shows the software's attempts in folding the protein correctly. Baker recalls people's messages writing things like "the folding is not going to work in this way, I would try a different one" pointing out one of the limitations of a machine: in contrast to humans, they are not able to guess

solutions when it comes to spatially manipulate objects in solving puzzles. Similarly in solving the Rubik's cube a machine would go through a try and error process by testing all the possible moves. Humans are slower than machines yet they perform far better on this type of problems. What about the possibility of merging the strengths of these separate worlds?

### **Human collaborative projects**

Foldit allows human users to play a puzzle game by folding a protein. After an initial phase of training on the rules of the game, players are challenged in lowering the conformational energy of proteins and rewarded by game points. The software offers both automated (using molecular mechanics algorithm like "SHAKE") and manual tools spanning from dragging sidechains and the mainchain, rubber bands to bring together large areas, chain freezer, etc. It is possible to compete and collaborate with other players in a team to solve the puzzles, and participate in the protein competition CASP. Users' results are really promising so far, and in some cases they have been more valuable than the classic computational approaches. The best folding strategies are currently being implemented in the next generation of Rosetta's algorithm.

Denis Bilotta

## **YEBN communication task group**

Communication plays a crucial role in structuring the organisational activities, objectives, internal and external information flow of each association. At YEBN, the communication task group (commTG) is the team that focuses on the above mentioned activities. The team is composed of eleven people from six different countries. The members further act as representatives of their respective country to keep track of the latest news from the majority of their national organisations' (Institutional Members') activities and events.

On 4-5 November 2009, the first meeting of the team took place in Bologna to discuss and plan the communication activities of the coming year 2010. At that time, several discussions led to creating the scope of main points in the commTG's strategy, which includes activities essential for proper cooperation within YEBN structures and stakeholders. Currently the group work focuses on several means of communication, which are:

### **Develop printed info material**

CommTG members are working on a YEBN corporate booklet in six languages and possibly other similar materials. Those would be useful during international events in disseminating information about our organisation.

### **Design and update of the content of the YEBN website**

A new website has been launched in early 2010 and since then, further content and changes are being implemented. After having solved a number of technical

obstacles faced a few months ago, the new YEBN website is back online, providing all members and interested persons with constant updates on the YEBN and YEBN partners' activities.

### **Design and maintain the YEBN newsletter**

A new newsletter has been launched in March 2010 and is currently released every two months. It consists of diverse sections aiming at presenting the news at YEBN as well as an overview of what is going on in biotech in terms of events and initiatives in Europe, recent discoveries and interviews of interest to YEBN members.

### **Produce content and manage freelance collaborations for the YEBN section in the journal New Biotechnology**

In the recent years, YEBN has been collaborating with the Elsevier journal New Biotechnology, where we currently publish insights, interviews, reports and articles in general that are of particular interest for young scientists in their early career. Debora Keller is in charge this cooperation.

### **Enhance internal and external YEBN communication by the adoption of new tools and means (web 2.0, new initiatives)**

In early 2010, we opened a twitter channel, followed by a facebook page. Both aim at easing the information exchange from and to the organisation.

Should you have any questions or suggestions (or just want to join us), please do not hesitate to contact [denis.bilotta\[at\]yebn.org](mailto:denis.bilotta[at]yebn.org).

Natalia Borkowska

## Institutional Member focus: ANBI



Interview with Simone Maccaferri,  
ANBI Chairman

### What is ANBI?

ANBI is a not-for-profit professional organisation that gathers the Italian Biotechnologists. Since its foundation in 2001, ANBI has continuously grown and has established a wide network of partnerships with the main actors playing a role in the development of biotechnology in Italy. Nowadays, ANBI is the most important Association in the field of Biotechnology and Life Sciences in Italy, in terms of number of members and ongoing activities and projects.

### What is the aim of your association?

The aim of ANBI is to promote the growth of the Italian Biotechnologists from a scientific, professional and cultural point of view. ANBI is active in the professional qualification of biotechnologists in Italy, in the development of tools to support the career of its members and the innovation of science and society relationship.

### How is ANBI working to achieve those goals?

#### What are your activities?

In these years ANBI strengthens its portfolio of partnership in particular with the National Council for Biotechnology Biosafety and Life Sciences (CNBBSV) of the Italian government, and with the Association of the Italian companies acting in the field of Biotechnology (Assobiotec) and Pharma (Farmindustria). These partnerships together with a strong and continuous relationship with the Italian Bioparks Association and the main Italian Scientific

**Our Network** connects independent national organisations active in Europe in the areas of biotechnology and life sciences.

**The organization members** defined Institutional Member (IM) are composed of young professionals, undergraduate and postgraduate students.

**Individuals** can also participate to YEBN activities as Individual Members (InM) upon registering on our website.

**>4000** young life scientists throughout Europe

**14** Countries

**Associated Section of European Federation of Biotechnology**

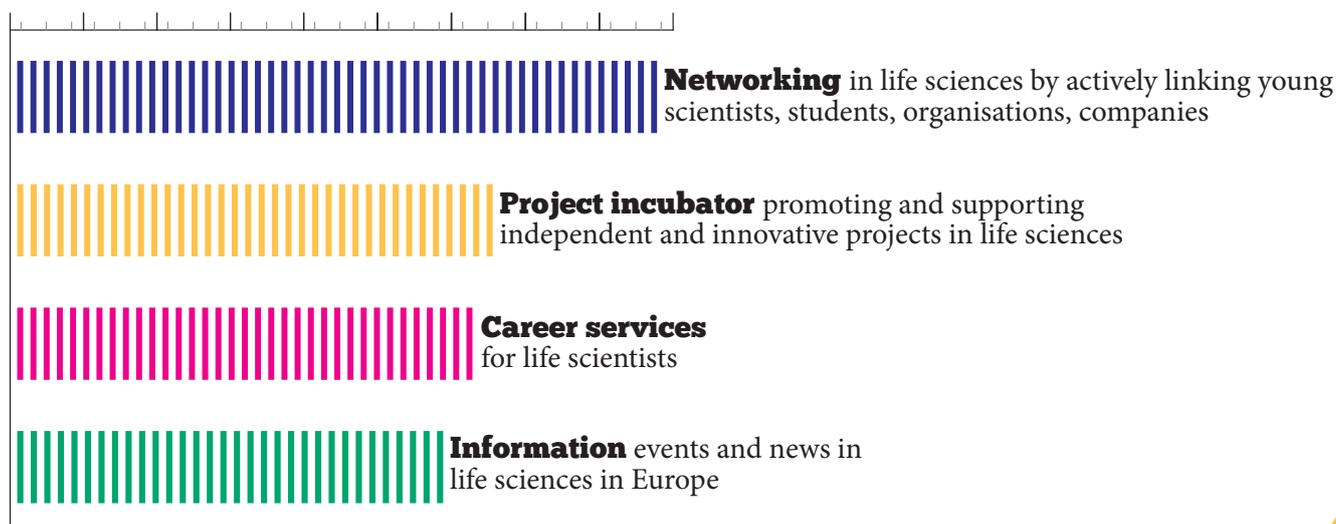
**1800 InM** in 2002

**2300 Members** within ongoing projects

**8** Organisations **CiLS, iPhD**

**8** Representing **more on yebn.eu**  
Austria, France, Germany, Italy, Poland, Spain, Switzerland

### What we do?



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and Technological Parks will lead to the launch of a new version BiotechJob - the network of professionals and institutions working in Biotechnology in Italy - by March 2011. In the area of science communication ANBI presented the renewed version of Prometheus ([www.prometeusmagazine.org](http://www.prometeusmagazine.org)) last year, now accessible as web magazine with daily updates on biotech and life sciences related issues. Furthermore, in order to grant its members the tools to constantly improve from a professional point of view, ANBI is organising Lifelong Learning events. Through sponsorships with Biotech Companies and fruitful collaborations with Italian universities we currently organise at least 4 training events on new lab techniques and instrumentations per year. We also offer opportunities of training beyond the research in areas like intellectual property, technology transfer, scientific communication, soft skills.

On top of this, members can exploit the opportunities offered by our national network and the rich portfolio of partnerships.

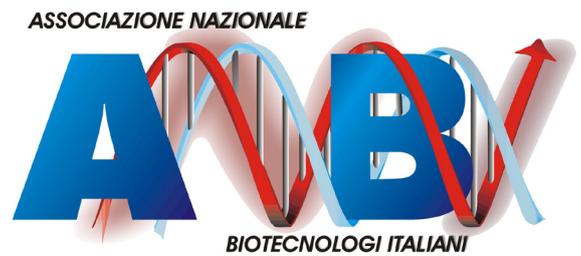
#### **Why did you join ANBI?**

I joined ANBI in 2007 after

being President of the National Council of Students in Biotechnology (CNSB) for one year, I was changed my approach to the Biotech world during my master project. As a young student at that time I realised that the best way to enter a scientific and professional community was surely joining the main actor in the field of the Italian biotechnology. I appreciated ANBI and its aims for the first time during the Biopop project, in which I was enrolled as a young scientific communicator and I had the possibility to be part of a great international team.

#### **Why is ANBI a member of YEBN?**

ANBI was one of the national associations that took part in the foundation of YEBN in 2002. Since then its commitment within the YEBN has always been of primary importance, in order to grant the biotechnologists as many opportunities as possible. International cooperation is nowadays fundamental mainly because many topics need to be addressed at a European level, via direct contacts with



stakeholders such as the European Commission or EFB. For example, ANBI has established a permanent discussion with all the public bodies involved in job market regulation and Professional Qualification at a national level. Since the directive 2005/36/EC defined the criteria for the promotion of common platforms for the mobility of professionals at a European level, independently from the local regulation, ANBI is promoting the professional qualification topic within YEBN and supporting the role of YEBN as stakeholder of EFB and other institutions that can benefit from an improved transnational mobility of biotechnologists.

Interview by Denis Bilotta

**naturejobs**  
**CAREER**  
**EXPO**

**23 SEPTEMBER 2010**  
**BUSINESS DESIGN CENTRE, LONDON**

<http://www.nature.com/natureconferences/careerexpo/>

## Event Report: Scie Talk 2010 Heidelberg

"Young life scientists often carry out a large portion of the work in research, but rarely have the chance to present their results before a congress' audience" points out Matthias Gehder from btS, adding "This has to be changed".

The result is ScieTalk 2010, that took place on June 8 in Heidelberg: graduate and undergraduate students as participants and no registration fee. With the title "Novel Insights in Human Diseases – How Cutting-Edge Methods Lead to Breakthroughs in Therapy" the event gathered young researchers working in all the related fields and provided the opportunity to present their work in form of talks or posters.

Everyone was asked to give individual feedback and vote for the best poster and talk. Phillip Peterburs' poster "Protein kinase D (PKD) regulates cell migration by direct phosphorylation of the cofilin phosphatase Slingshot homolog 1 like (SSH1L)" was elected for the best poster and Kathy Hasenbach won the "Oncotherm Award" with her talk on "Imaging glioma-mediated attraction of bone marrow-derived hematopoietic progenitor cells in vitro".

More information at [www.ScieTalk.btS-eV.de](http://www.ScieTalk.btS-eV.de) and [www.btS-eV.de](http://www.btS-eV.de)

Fanny Georgi

### YEBN scientist focus

Peter Bristot was the first chairman of YEBN and founder of the Munich branch office of btS back in 1999.



Now he is an active btS alumnus. Since his graduation as a physician in 2006 he has been working for Bain & Company an international strategy consulting company.

**Peter, you initialised the foundation of YEBN in 2002 together with other young life scientists and were the first chairman. What was your vision?**

The idea for setting up a network came up during 'Biotechnica', Europe's largest biotechnology fair in Hanover in late 2001, where we (the btS) met young researchers from Italy and Switzerland. For us it was natural that in the life sciences not only laboratories and companies, but also students and young researchers should collaborate on an international level. Some of us actively hoped to hop on the European biotech bandwagon to kick-start their national scene, but for many of us the enthusiasm to take on an

international adventure was the primary motivating factor.

**You are now working as strategy consultant for Bain & Company. How did the experience in YEBN shape your personal and professional development? And how does it help in doing your daily job?**

Through the work in the YEBN I have once again learned that with a team of different backgrounds, attitudes and approaches the results are often much better - despite a sometimes challenging way to get there. Today as a management consultant the situation is very similar. My projects are almost entirely international and my colleagues and clients rarely share the same professional background, personal agenda or cultural origin.

**You are active within btS the Institutional Member of YEBN in Germany. What is the difference between working on a national and an international level?**

In the early times of the YEBN things were less bureaucratic and more flexible and our ideas were driven by enthusiasm and start-

up euphoria. The projects created quickly caught a lot of attention in the community. The European life sciences were craving for an active youth organisation and proactively reached out their hands to an international student initiative. btS however was already a very established association of students with much more experience, a well-functioning network and many regional representatives when I joined. That said I do not see fundamental differences between the daily work for a national versus an international student network.

**As a young professional today and former active member of YEBN and btS how do you keep in touch?**

I am an active member of the alumni advisory board of the btS: I regularly discuss strategic issues with the national board, mentor the branch in Munich and I hold workshops at most of the annual meetings. My remaining link to the YEBN is based on individual contacts with YEBN co-workers that have become personal friends.

Interview by Irina Epstein

## Upcoming events in Life Sciences

### DEADLINES

**30<sup>th</sup> Sept** abstract/registration for the International Student Conference in Wroclaw, Poland (see [www.assb.pl](http://www.assb.pl))

#### ScieCon NRW 2010, 27 October in Bochum, Germany

The ScieCon is the oldest and largest life sciences career fair of its kind in Germany. Last year in Bochum, the fair recorded more than 1,000 visitors. Thus, it was the most successful fair for students and young professionals in northern Germany addressing specifically the life sciences sector. The 16th ScieCon will take place on 27 October at the Ruhr-University Bochum, Germany. During the whole day visitors will have the opportunity to talk to about 20 exhibitors including biotech and pharmaceutical companies as well as consultancy firms and academic organisations. Several talks, a panel discussion and services such as CV checking and interview training are also part of the programme. "The ScieCon is perfect to prepare for your career entry", explained one of the visitors. The event is organized by btS, the largest life sciences student association in Germany.

It's completely free and no registration is needed. More information at [www.ScieCon.info](http://www.ScieCon.info)

Anna Bode

#### Research- European Research Career fair, 19 November in Paris, France

Research is an event dedicated to the promotion of research careers and recruitment of scientists in Europe.

60 exhibitors (European companies, Innovative SMEs,

campuses, Research centres, clusters), more than 1500 PhD students and researchers from all Europe and keynote speakers will meet for recruitment interviews and to discuss about new career prospects in Europe.

YEBN will be participate and will present iPhD project during the conference panel on "The new frontiers of research: what is the reality for the work of researchers?". There is no registration fee. More info on [www.researchcareerfair.com](http://www.researchcareerfair.com)

Marie Müller

#### JobVector day, 7 October in Hanover, Germany

Jobvector organises events focussed on careers in life sciences aiming to match opportunities offered by employers with job seekers interested to work in companies mainly based in Germany and Switzerland. Forthcoming Jobvector days will take place in Basel and Hanover and will offer different tools to get employees and attendees together:

- In the **"Jobvector-Career"** booth the "jobwall" presents an overview over vacant offers for jobseekers. At the companies booth they can directly get in touch with the companies they are interested in;

- The **"Jobvector-Forum"** offers a series of presentations aimed at a large audience illustrating what each employer

can offer in terms of career paths as well as giving hints and qualification standards required from the applicants;

- **"Jobvector-Networking"** finally brings together companies and applicants in a "job-tour". Further to this, applicants will be equipped for the career day with a booklet containing the list of companies present at the event and all the relevant information. Human Resources teams of many companies will be present among them Eppendorf AG, Kelly Scientific Resources, Qiagen GmbH and many more. The jobvector career days are kindly supported by Thermo Fisher Scientific. Find more information and the registration forms at: [www.jobvector.de/hannover](http://www.jobvector.de/hannover)

Irina Epstein