

The EMBL-European Bioinformatics Institute SME Forum 2011 Piemonte, Italy



In September 2011, the 5th annual EMBL-European Bioinformatics Institute (EMBL-EBI) SME Forum was hosted in Turin, Italy by the BioPMed Piemonte Innovation Cluster.

The SME Forum offers small businesses a unique opportunity to learn about EMBL-EBI's comprehensive range of free, up-to-date bioinformatics databases and tools.

There were around 80 delegates, representing a broad range of sectors and expertise, from PhD students to lab technicians and entrepreneurs. Delegates heard about how other businesses in the region use EMBL-EBI resources, and had time to network with potential collaborators.

Event host Fabrizio Conicella of BioPmed commented: "We try to inspire and dynamize the local SME cluster by inviting 'foreign DNA' to the area. This helps to keep us from stagnating. The future of health care depends on merging technologies. Bioinformatics can help us solve biological problems, to manage and analyse the output of our activities for the benefit of companies beyond the life science sector."

The event opened with a workshop in which participants were asked to categorise biological concepts. This challenging activity is one of many ways in which EMBL-EBI staff learn about how our users think so that we can make our services even better.

EMBL-EBI trainers presented a series of high-level talks covering the EBI's integrated search service (Jenny Cham), the genomic resource Ensembl (Jana Vandrovcova), gene expression resources such as ArrayExpress and the Expression Atlas (Gabriella Rustici), proteomics services including UniProt, InterPro, IntAct and Reactome (Michelle Magane) and Cheminformatics resources ChEMBL and ChEBI (Anne Hersey).

Workshop participant Souad Rouis of the Centre of Biotechnology of Sfax commented: "I knew a little about the EBI, but this is the first time I've participated in an event like this. The expression tools, IntAct and Rectome are all new to me - these will be very interesting tools for us to look at."



Jenny Cham presented the EBI's summary search service, which provides a printable summary of all that is known about a particular gene or protein. The EBI search collates results from our many core services, and presents them in a structured format that can be navigated easily.

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Francois Rechenmann of Genostar presented his company's recent work, explaining how Genostar makes optimal use of EMBL-EBI resources such as ENA and UniProt to provide their clients with genomic sequence prediction and other information about microorganisms. “We sell science,” he said. “We leverage EBI resources to serve our clients.”

Bryn Williams-Jones of Connected Discovery and representing the Pistoia Alliance presented his thoughts on industry. “SME's form a huge percentage of the end-users of bioinformatics resources,” Bryn explained. “I'm here to talk about what they need the data for, and how they need the services to evolve. I'm also very interested to learn about how biotech works in Italy. There are a lot of people doing very valuable work here - they need to have a stronger voice in discussions about public bioinformatics services.”

Rodrigo Lopez, head of EMBL-EBI External Services, commented: “SMEs can spend a lot

of money on data infrastructure. You shouldn't have to do this - we're trying to help you as much as we can to avoid putting all your efforts into this area... Our main goal is to help users get truly meaningful results.”

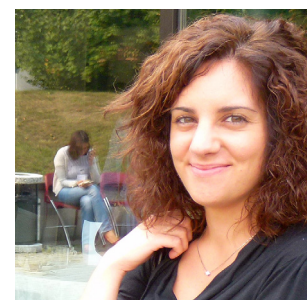
Jennifer MacDowell presented the EMBL-EBI's patent services, showing how they can save a huge amount of time and effort and highlighting their value as unique sources of information. “Patents themselves are an important source of biological annotation,” she explained. “The databases give you information about sequences that you will not find anywhere else.”

Ilaria Bonarrigo and Ilaria Zanellato of Università del Piemonte Orientale “Amedeo Avogadro” perform assays on cells to test new compounds that might be useful as drugs. The SME Forum introduced them to ChEMBL, a powerful tool for discovery hosted by EMBL-EBI. During the breaks they had a chance to sit with Anne Hersey and search on their area of interest (platinum-based compounds).

“The Search is new to me as well,” said Ilaria Bonarrigo. “The curator-selected articles and nonredundant patent sequence results are potentially very useful in my research.”

Bernd Fischer of the European Molecular Biology Laboratory explained his work developing public tools for imaging analysis and systems microscopy - an important area of research.

Enrico Bucci of BioDigitalValley talked about his company's work comparing experimental ‘metagels’ to validate information about a protein and predict what will happen in a given



condition. "We rely heavily on open-source images, and reuse information in them to give useful advice to our clients," he explained.

Pamela Zolda of the European Institute for Biomedical Imaging Research (EIBIR) presented the EuroBioImaging European Research Infrastructure Project (EuroBioImaging). Pamela emphasized the importance of providing researchers throughout Europe with access to state-of-the-art imaging equipment and the training to use it.

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Elena Spoldi of Fondazione per le Biotecnologie is a biologist with a background in synthetic organ engineering. Her multidisciplinary training programme - soon to host an EMBL-EBI bioinformatics roadshow - focuses on food safety. "We bring people together to share their knowledge in chemistry, informatics and biological processes relevant to production," she explained. "People are hungry for this information. I'm here to understand public bioinformatics resources better, so I can give our participants the best tools to understand the information they're working with."

Luigi Di Vietro, a first-year PhD student studying a single protein, was keen to learn about EMBL-EBI's web tools. "I use many databases and web

tools in my work," he said. "I've discovered many tools and databases here that I want to try out - Clustal Omega and ChEMBL, for example. The SME Forum is really important for us: free tools, training and networking!"

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Alessandro Bondi is the bioinformatician at ProCellTech, a six-person company. "We do a little bit of everything: microanalysis, functional genomics, noncoding RNA... The fact is that people will always use the most intuitive tool - integration and usability are what matter." Alessandro was keen to explore the Gene Expression Atlas and Reactome.

Gianmarco Piola of event co-sponsor PoloICT believes that events like the SME Forum are an excellent opportunity for entrepreneurs working in different sectors to get to know one another. "These meetings can encourage new ideas, and offer the possibility of joint ventures and new products," he said.

The talks were followed by hands-on gene expression and proteomics workshops, led by Gabriella Rustici and Michelle Magrane.

Next year's SME Forum will take place in Barcelona, Spain. You can join the SME Forum mailing list at www.ebi.ac.uk/industry/SME



The SME Forum is substantially subsidised by EMBL-EBI.

The 2011 forum was generously hosted by Bioindustry Park Silvano Fumero and organised through BioPMed. Other co-sponsors included:

- Lyonbiopole
- Polo de innovazione ICT
- ELIXIR - the emerging European infrastructure for biological data
- SLING

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All tools and services provided by EMBL-EBI are freely available without restriction: www.ebi.ac.uk

To learn more about the SME Forum, visit www.ebi.ac.uk/industry/SME/

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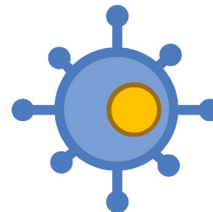
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