11th SME BIOINFORMATICS FORUM

Welcome & Introduction

1st November 2018

Dominic Clark
EMBL-EBI Industry Programme Manager
The European Molecular Biology Laboratory

- Main laboratory: Heidelberg, Germany
- Bioinformatics: Hinxton, Cambridge, UK
- Structural biology: Grenoble, France
- Tissue biology & Disease Modelling: Barcelona, Spain
- Neuroscience: Monterotondo, Rome, Italy
- Structural biology: Hamburg, Germany
EMBL-EBI global database collaborations
EMBL-EBI global Industry Programme

Pharmaceutical & Diagnostic

AstraZeneca
Bayer
Boehringer Ingelheim
gsk
Janssen
MERCK
Pfizer
Roche
Sanofi
Novartis
Lilly
Novo Nordisk
Bristol-Myers Squibb
Biogen
Astellas
UCB
Takeda
MSD
AbbVie
Celgene
Syngenta
Daiichi-Sankyo
Unilever

Agri-food
Knowledge exchange workshops

- 1000 Genomes & analysis of NGS data
- ENCODE & epigenomics
- Pre-clinical safety data
- Biomarkers: a public resource
- Semantic web
- Onco-genomics
- Clinical & translational informatics
- Computational systems biology
- Computational drug repositioning
- Chem-informatics & metabolism
Knowledge exchange workshops

• Workshops provide expert level presentation and discussion opportunities with key opinion leaders.

• The workshop topics are prioritised by the members.

• Building the agenda involves an iterative process of TCs and email with members of the organising committee.
  • Mostly - knowledge exchange with speakers and discussion
  • Sometimes – involve interactive discussion/sessions
  • Occasionally – involve some hands-on activity (1 per year)

• Workshops are moderated with facilitated discussion
<table>
<thead>
<tr>
<th>Month/date</th>
<th>Title</th>
<th>Proposer</th>
<th>Location</th>
<th>attendees</th>
</tr>
</thead>
<tbody>
<tr>
<td>March/8-9</td>
<td>Informatics resources to support neurodegenerative research</td>
<td>Astex</td>
<td>EMBL-EBI</td>
<td>39</td>
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<tr>
<td>March/20-21</td>
<td>Expanding IUPAC Standards for Chemical Information – industry applications &amp; stakeholder perspectives</td>
<td>NCBI</td>
<td>EMBL-EBI</td>
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<tr>
<td>April/19-20</td>
<td>Ontologies in Agriculture, Food and Nutrition</td>
<td>Bayer Crop Science</td>
<td>EMBL-EBI</td>
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<tr>
<td>May/2-3</td>
<td>Informatics &amp; -omics for Oncology Drug Resistance</td>
<td>AstraZeneca</td>
<td>Waltham, MA.</td>
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<tr>
<td>May/3-4</td>
<td>Target Tractability Assessment</td>
<td>Andrew Leach</td>
<td>EMBL-EBI</td>
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<tr>
<td>May/17-18</td>
<td>Digital Biomarkers: delivering health data for diagnostic medicine</td>
<td>Roche</td>
<td>EMBL-EBI</td>
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<tr>
<td>May/22-23</td>
<td>Predictive Modelling of Biomarkers</td>
<td>Takeda</td>
<td>Cambridge, MA.</td>
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<tr>
<td>June/14-15</td>
<td>Bio-pharmaceutical opportunities in proteomics</td>
<td>BMS</td>
<td>EMBL-EBI</td>
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</tr>
<tr>
<td>June/28-29</td>
<td>User Experience for Life Sciences</td>
<td>Pistoia Alliance</td>
<td>EMBL-EBI</td>
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<tr>
<td>Sept/13-14</td>
<td>The Human Microbiome: challenges and opportunities for novel therapeutics</td>
<td>Roche</td>
<td>EMBL-EBI</td>
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<tr>
<td>Sept/26-27</td>
<td>Computational Systems Biology Approaches to Neurodegeneration Drug Discovery</td>
<td>Biogen</td>
<td>Cambridge, MA.</td>
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<tr>
<td>Oct/25-26</td>
<td>Genome Editing in Drug Discovery &amp; Development</td>
<td>GSK</td>
<td>EMBL-EBI</td>
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<tr>
<td>Dec/6-7</td>
<td>Single Cell RNA-seq: data generation, processing, resources and analytical tools for applications in cell-based therapies</td>
<td>Novartis, Astellas</td>
<td>EMBL-EBI</td>
<td>67</td>
</tr>
<tr>
<td>Month/date</td>
<td>Title</td>
<td>Proposer</td>
<td>Location</td>
<td>Participant Nos./Reg</td>
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<tr>
<td>Feb/7-8</td>
<td>Cancer Systems Biology</td>
<td>Pfizer</td>
<td>La Jolla, CA</td>
<td>109</td>
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<tr>
<td>March/7-8</td>
<td>AI-Assisted knowledge acquisition for biomedical researchers</td>
<td>GSK</td>
<td>EMBL-EBI</td>
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<tr>
<td>April/24-25</td>
<td>Machine learning in drug discovery and precision medicine</td>
<td>Novartis &amp; Merck&amp;Co</td>
<td>Boston, MA</td>
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<tr>
<td>May/14-15</td>
<td>Wearable Technologies</td>
<td>Takeda</td>
<td>Cambridge, MA</td>
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<tr>
<td>May/23-24</td>
<td>Computational immuno-oncology</td>
<td>AstraZeneca</td>
<td>EMBL-EBI</td>
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<tr>
<td>June/13-14</td>
<td>Innovations in data visualisation for drug discovery</td>
<td>GSK</td>
<td>EMBL-EBI</td>
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<tr>
<td>June/27-28</td>
<td>Pharmacokinetics (PK) Prediction and Design for Biologics</td>
<td>Merck KGaA</td>
<td>EMBL-EBI</td>
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<tr>
<td>Sept/12-13</td>
<td>Proteomics and Proteogenomics</td>
<td>Abbvie/Pfizer</td>
<td>Cambridge, MA</td>
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<td>Sept/18-19</td>
<td>Machine Learning in Drug Discovery and Precision Medicine</td>
<td>Pfizer, GSK, Novartis, BMS</td>
<td>EMBL-EBI</td>
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<tr>
<td>Nov/8-9</td>
<td>The past, present and future of RNA-seq technology and its application to drug discovery</td>
<td>Pfizer, Biogen</td>
<td>Cambridge, MA</td>
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<td>Nov/14-15</td>
<td>Epigenetics in Aging and Disease</td>
<td>Unilever</td>
<td>EMBL-EBI</td>
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<td>Dec/5-6</td>
<td>Liquid Biopsies in Clinical Practice</td>
<td>Astex</td>
<td>EMBL-EBI</td>
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www.ebi.ac.uk/industry/workshops
Organisations represented at this event…

- Linguamatics
- CONGENICA
- SEQUENCE ANALYSIS.CO.UK
- CANCER RESEARCH UK
- THERAPEUTIC DISCOVERY LABORATORIES
- repositive
- ContentMine
- Open Targets
- eLIFE
- BIOCATALYSTS
- exceeding enzyme expectations
- Talisman
- SciBite
- CATAPULT
- Medicines Discovery
- Sainsbury Laboratory
- University of Cambridge
- STORM THERAPEUTICS
- Harnessing the power of RNA epigenetics
- CERTARA
- WELLCOME GENOME CAMPUS
- Global Gene Corp
- Ian Harrow Consulting
- For expert services in Bioinformatics and Text Mining
- elixir
- ENTHOUGHT
- one nucleus
- The Business Catalyst for Life Sciences
- de Matos UX Consulting Ltd
- Docproc Consulting
Our Event Sponsors & Co-hosts

CATAPULT
Medicines Discovery

elixir

one nucleus
The Business Catalyst for Life Sciences
Agenda for the day…

• About EMBL-EBI: Industry strategy; new resources, tools & services
• Flash talks: pitch presentations from delegates
• Case studies of current EMBL-EBI/SME collaborations and how SMEs are using public data resources.
• Funding and support for SMEs – presentations from Medicines Discovery Catapult; WGC Bio-innovation Centre; BBSRC; Elixir-Europe; OneNucleus and on EMBL-EBI Training and UX for Life Sciences
• EMBL-EBI data resource showcase: chance to explore the tools and talk to our bioinformatics experts.
• Panel Discussion
• Networking throughout the day ending with a drinks reception until 18:00h
Housekeeping:

- Safety
- WiFi connection
- Event logistics: Lucie Smith (lsmith@ebi.ac.uk)