Train online at EMBL-EBI

Dr Sarah Morgan
Training programme manager

www.ebi.ac.uk/training
Train online (www.ebi.ac.uk/training/online)

- Launched in 2011
- 72 courses covering genomics through to chemical biology and literature
- Focus on EMBL-EBI resources
- CC by SA
Target audiences

Bench-based life scientists

- What resource should I use to do....?
- How do I use it?

Bioinformaticians / developers

- What other resources are available?
- Recap on how to use resource x
- Programmatic access

Tutors

- What courses and resources can I direct my students to?
- Do you have exercises?

Credits:
[1] Jenny Cham’s blog
[2] Cliparts.co
Types of courses / tutorials

- Conceptual
- Quick tours ("walkthroughs")
- Videos
- Webinars

Videos:
- ShortRead (Readtools), ffRanges (GRanges), Biostrings and other Bioconductor packages
- EMBL_UCSC Genome Browser - how to get started

Webinars:
- Exploring the UniProtKB results page
Key features:

- No need to register
- Dip in and out
- Take entire course or just relevant sections
- Repeat courses multiple times
Content variety

Guided examples

1. Search for the human OSM gene as in the figure. (Alternatively use the search box at the top right of every Ensembl page).
2. Click ‘Go’.
3. Click through to the gene tab. For a reminder of how to do this see the ‘How to search Ensembl’ section.

Annotated screenshots

A graphical representation of the data. The image shows phenotypic traits which have exhibited this trait.

Exercises

Finding entries with 3D structures

Scenario

You were flipping through a past issue of Science and came across the following article:

The Protein Kinase Complement of the Human Genome

Exercise

You want to find all human protein kinases in UniProt that have a 3D structure associated with them. How would you do that?

Quizzes

Short videos
Developing the courses

Strategic review

- STO, managerial, web developer

Engage subject matter expert & set-up course template

Subject matter expert(s), STO

Write

Review

Subject matter expert(s), STO

Review & publish

STO, managerial

Update courses / development updates

Subject matter expert STO, web developer
Analytics data

- Over 324,000 unique users since July 2012
- From 217 countries
- Currently averaging around 16,000–17,000 unique users per month
- 40% returning users
Most popular courses in 2015

<table>
<thead>
<tr>
<th>Course</th>
<th>Unique Pageviews in 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Next generation sequencing</td>
<td>186,544</td>
</tr>
<tr>
<td>Introduction to protein classification</td>
<td>32,654</td>
</tr>
<tr>
<td>Ensembl Genomes tutorial</td>
<td>19,571</td>
</tr>
<tr>
<td>Biomacromolecular structures</td>
<td>12,080</td>
</tr>
<tr>
<td>Introduction to Metabolomics</td>
<td>11,199</td>
</tr>
<tr>
<td>Interpro tutorial</td>
<td>8,066</td>
</tr>
<tr>
<td>Introduction to phylogenetics</td>
<td>5,541</td>
</tr>
<tr>
<td>Introduction to functional genomics</td>
<td>5,126</td>
</tr>
<tr>
<td>Protein interactions and their importance</td>
<td>4,388</td>
</tr>
<tr>
<td></td>
<td>3,680</td>
</tr>
</tbody>
</table>
Acknowledgements

EMBL

Innovative Medicines Initiative

BBSRC
biol oscience for the future

EMBO

wellcome

trust