Big data mining in Life Sciences

**Target audience**
Professionals from the biotechnology sector: project leaders, researchers, programmers, students, teachers, …

**Prerequisite**
- STAT-1.1 : L’analyse statistique appliquée aux sciences du vivant
- STAT-2.1 : Initiation au logiciel d’analyse statistique libre R

**Objectives**
People with no knowledge of data mining will learn to:
- Recognize benefits and understanding the complexities of data mining;
- Understand how to extract added value from their most valuable medical and genomics data;
- Decide which data-mining technique is the most appropriate in given situations;
- Study real applications of data mining in life sciences (bioinformatics, genomics);

**Content**
- Theory: data mining methods, supervised, unsupervised
- Advanced R tutorial; Case studies making use of TCGA data using R: survival analysis, gene differential expression analysis, etc using different data types (integromics)

**Methodology**
1 day lecture, 1.5 days training

**Experts**
- Gianluca Bontempi (Interuniversity Institute of Bioinformatics in Brussels (IB), Prof., Director)
- Catharina Olsen (ULB, Computer Science Department)
- Andrea Dal Pozzolo (ULB, Science Informatique, PhD student in Machine Learning)

**Coordinator**
Biopark Formation - Erika Baus, formatrice (erika.baus@ulb.ac.be)

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**In practice**

**Référence:** DATA-3.1

**Location:** Biopark Charleroi

**Duration:** 2,5 days

**Schedule:** 9:15 to 17:00 and 9:15 to 12:30

**REGISTRATIONS AND FEES**
Biophare : [http://www.biophare.eu](http://www.biophare.eu)

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**Contact**

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