# Using Computation and Systems Biology to Further the Understanding of Cancer

## StratCan Interactive Summer School in Cancer

**Karolinska Institutet**

**Vår Gård Saltsjöbaden**

**Stockholm Archipelago, Sweden**

**August 30 – September 1, 2014**

**StratCan**
THE STRATEGIC RESEARCH PROGRAMME
IN CANCER AT KAROLINSKA INSTITUTET



**THE SUMMER SCHOOL THEMES:** Bioinformatics of Genomics and Epigenetics; Cancer Network Biology; Statistics of High-throughput data analysis; Data Integration, Gene Networks, and Systems Biology; Online Resources and Off-line Tools.

The participants (the number is limited to 30) will be expected to work on small projects during the course.

We witness rapid data accumulation on cancer genomes, transcriptomes, and their relations with clinical phenotypes. Despite the growing understanding of cancer, the gap between data collection and knowledge mining keeps increasing. Attempts to integrate diverse data collections in a meaningful way fail too often. Experimental research groups that receive exponentially growing data amounts still possess limited capabilities of bioinformatics processing. There is also a communication gap between experimental and computational biologists. We urgently need to meet these challenges to implement the concept of personalized cancer medicine.

### INVITED FACULTY:

**Peter Csermely (Semmelweis University, Budapest); Vladimir Kuznetsov (A*Star Singapore); Jussi Taipale (Science For Life Laboratory, Karolinska Institute); Rory Stark (Cancer Research UK Cambridge Institute); Carsten Daub (Science For Life Laboratory, Karolinska Institute); Lukas Käll (Science For Life Laboratory, Stockholm University); Leroy Hood (Institute for Systems Biology, Seattle, pending); Sui Huang / Ilya Shmulevich (Institute for Systems Biology, Seattle, pending)**

**Accepted participants will be charged a registration fee of 90 Euros . Remaining costs for accommodation and participation will be free of charge (sponsored by StratCan).**

Applications should be sent to andrej.alekseenko@scilifelab.se by 15th of July, 2014 and include an abstract that presents the applicant's research, a brief statement of motivation (max 1 A4 page in total) and a brief CV (incl contact address, email and mobile number).

*Organizers: Andrey Alexeyenko (Bioinformatics Infrastructure for Life Sciences) and Ingemar Ernberg (KIcancer)*