The Center for Bioinformatics and Computational Biology

bringing biology and computer science together

Mihai Pop
A bit of history

- Joseph JaJa (UMIACS director), Steve Mount, and others argue for the creation of the CBCB
- Inaugural members: Rita Colwell, Michael Cummings
- 2005: Steven Salzberg becomes first CBCB director
- 2006: Najib El Sayed, Mihai Pop
- 2007: Carl Kingsford
- 2010: Sridhar Hannenhalli, Héctor Corrada Bravo
- 2011: Mihai Pop becomes interim director
- 2012: first OMICS day!
CBCB Vision

• Foster interactions between computational and biological scientists

Shotgun sequencing
Genome assembly
Phylogenetics
Sequence alignment
Blast, Bowtie
GWAS

Algorithmica, SIAM J. of Computing, FOCS, SODA, NIPS, etc.
Faculty
Hector Corrada Bravo
Rita Colwell
Michael Cummings
Najib El Sayed
Sridhar Hannenhalli
Carl Kingsford
Steve Mount
Mihai Pop

Departments
Biology
Cell Biology and Molecular Genetics
Computer Science

Graduate programs
Applied Mathematics (AMSC)
Biological Sciences (BISI)
Computer Science

~8-10 postdocs, ~25 graduate students, ~4-6 undergraduate students
2 bioinformatics engineers
The tools of the trade

- High memory servers
- Computational cluster
- ~1/2 PBytes of disk storage

- State of the art lab facilities
Major projects
Software and Databases

GiRaF
Bowtie
Mimosa
ARDB
Jellyfish
TransTerm
Metastats
SRFIM
Recent Awards

Sloan Research Fellows

Graduate Research Fellowship
Alumni
The future

- CBCB as an anchor for Computational Biology research at the University of Maryland
  - meetings
  - seminars
  - courses
  - internships
  - match-making
  - collaborative research partnerships
  - bioinformatics services
Acknowledgments

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