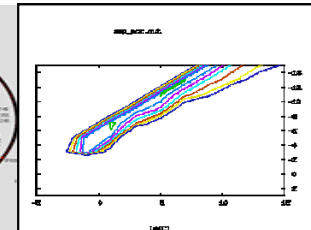


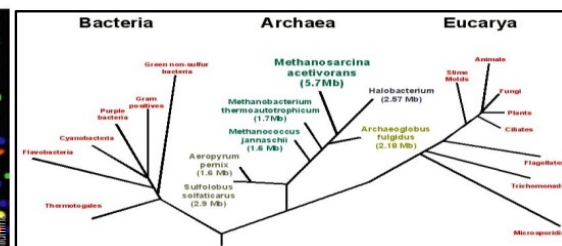
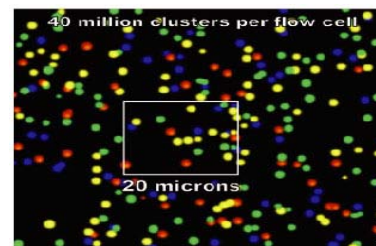
北京大学生物信息学中心 魏丽萍

Center for Bioinformatics, Peking University





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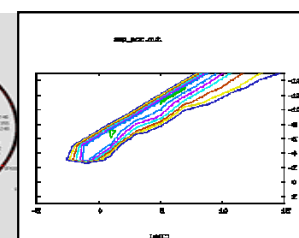
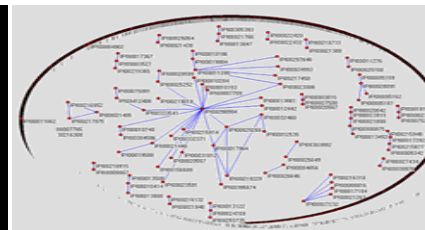
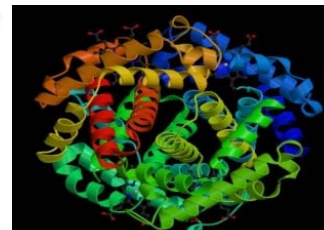
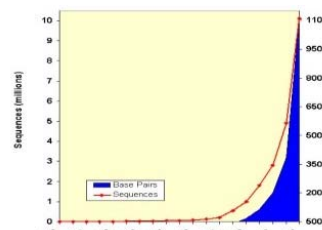
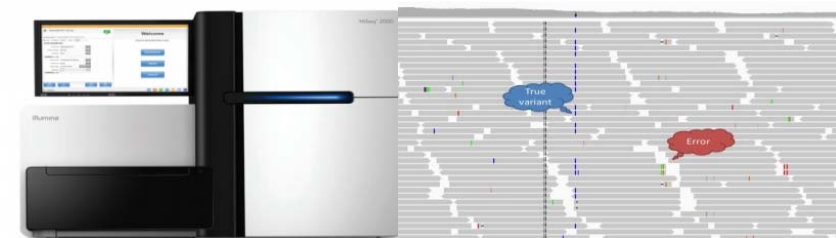


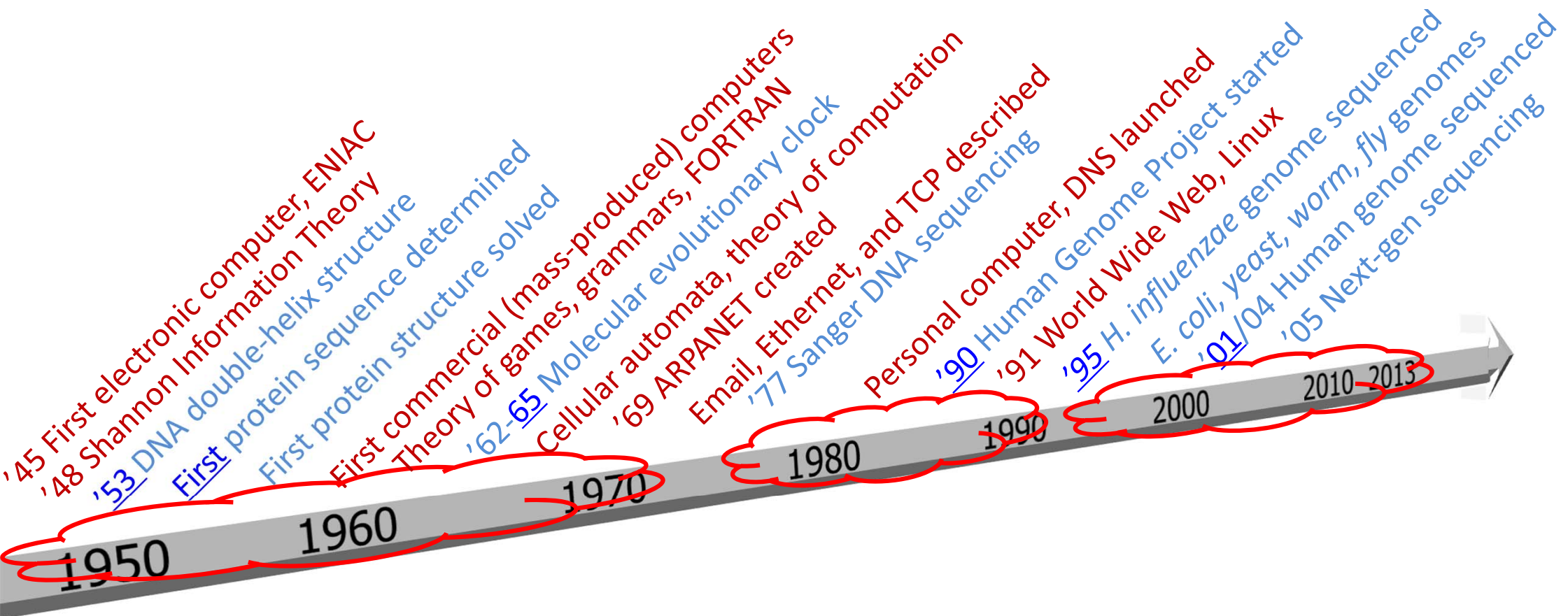
Unit 2: History of bioinformatics

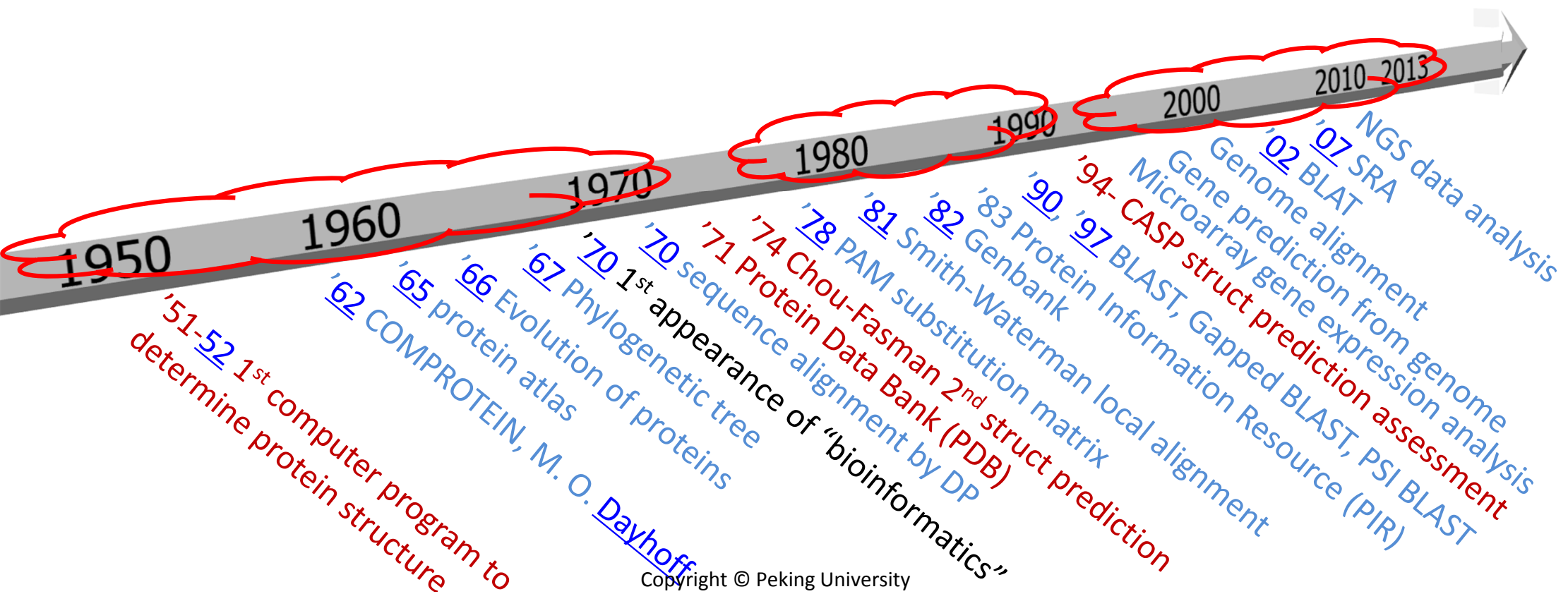
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Examples of contributions to computer sciences

- Neural networks
- Genetic programming
- WAN

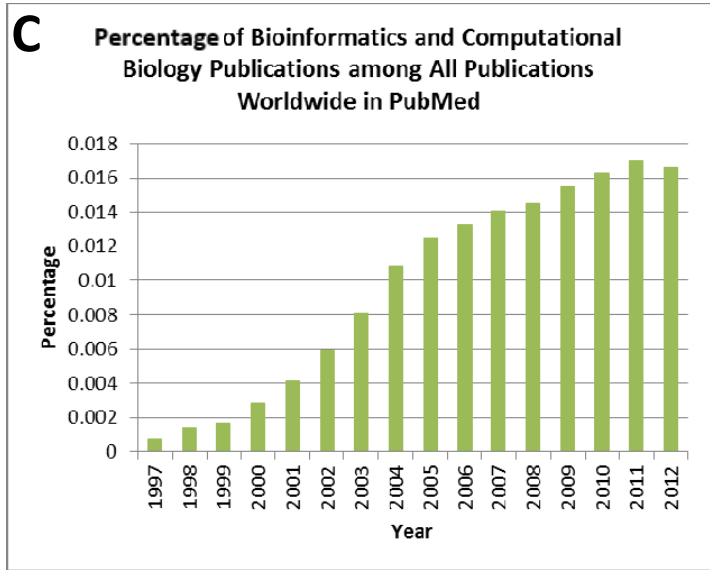
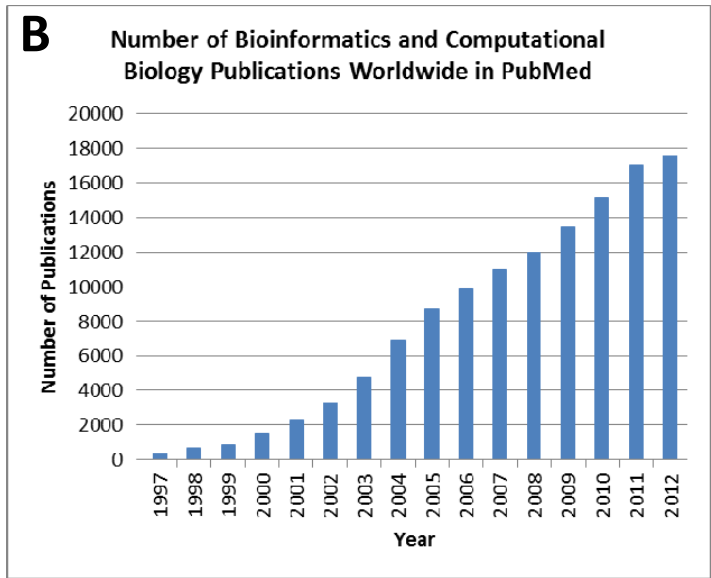
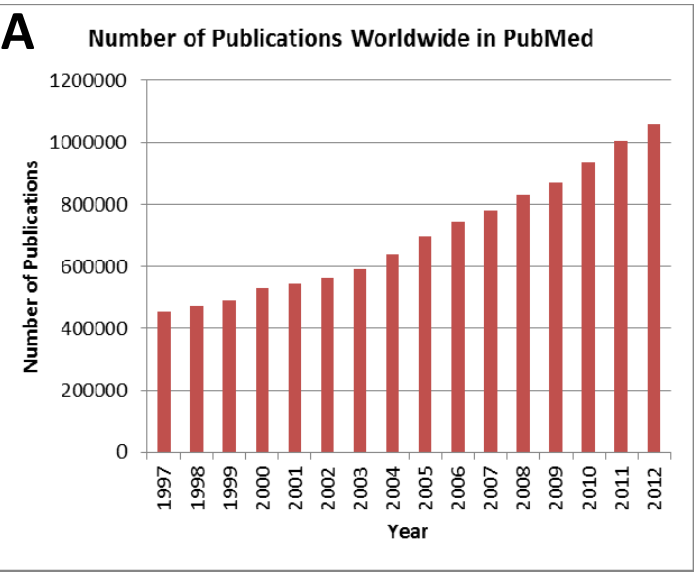


Table 1. Ten institutions that pioneered and fostered computation in biology

Institutions	Country
Birkbeck College, University of London	UK
Boston University	USA
European Molecular Biology Laboratory (EMBL)	DE and EMBL states
Institute of Protein Research, Academy of Sciences, Puschino	Former USSR
Laboratory of Molecular Biology (LMB), MRC Cambridge	UK
Los Alamos National Laboratory (LANL)	USA
National Biomedical Research Foundation (NBRF), Georgetown U	USA
Stanford University	USA
University of California San Francisco (UCSF)	USA
University College, University of London (UCL)	UK

Current Bioinformatics Journals

- Bioinformatics
- BMC Bioinformatics
- BMC Systems Biology
- Briefings in Bioinformatics
- Bulletin of Mathematical Biology
- Cancer Informatics
- Computational Biology and Chemistry
- Computers in Biology and Medicine
- Database: The Journal of Biological Databases and Curation
- IEEE/ACM Transactions on Computational Biology and Bioinformatics
- Journal of Bioinformatics and Computational Biology
- Journal of Biomedical Informatics
- Journal of Computational Biology
- Journal of Integrative Bioinformatics
- Journal of Mathematical Biology
- Journal of Theoretical Biology
- PLoS Computational Biology
- Source Code for Biology and Medicine
- Statistical Applications in Genetics and Molecular Biology
- Nucleic Acids Research
- Genome Research
- Nature Methods
- Nature Biotechnology



China?

Summary Questions

- What are the main events in biology that are critical for the development of bioinformatics?
- What are the main events in computer sciences?
- Can you name a few of the seminal works on the analysis of sequences and structures?
- Can you name any of the early pioneers?
- Are there any important works and/or pioneers that are missed in this presentation?

生物信息学：导论与方法

Bioinformatics: Introduction and Methods



<https://www.coursera.org/course/pkubioinfo>