Wiener Wissenschafts-, Forschungs- und Technologiefonds

The Center for Integrative Bioinformatics Vienna (CIBIV)

Undergrads

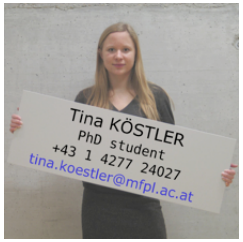
Peter Schmitzberger

Tobias Neumann

Philipp Rescheneder

Stefan Ganscha

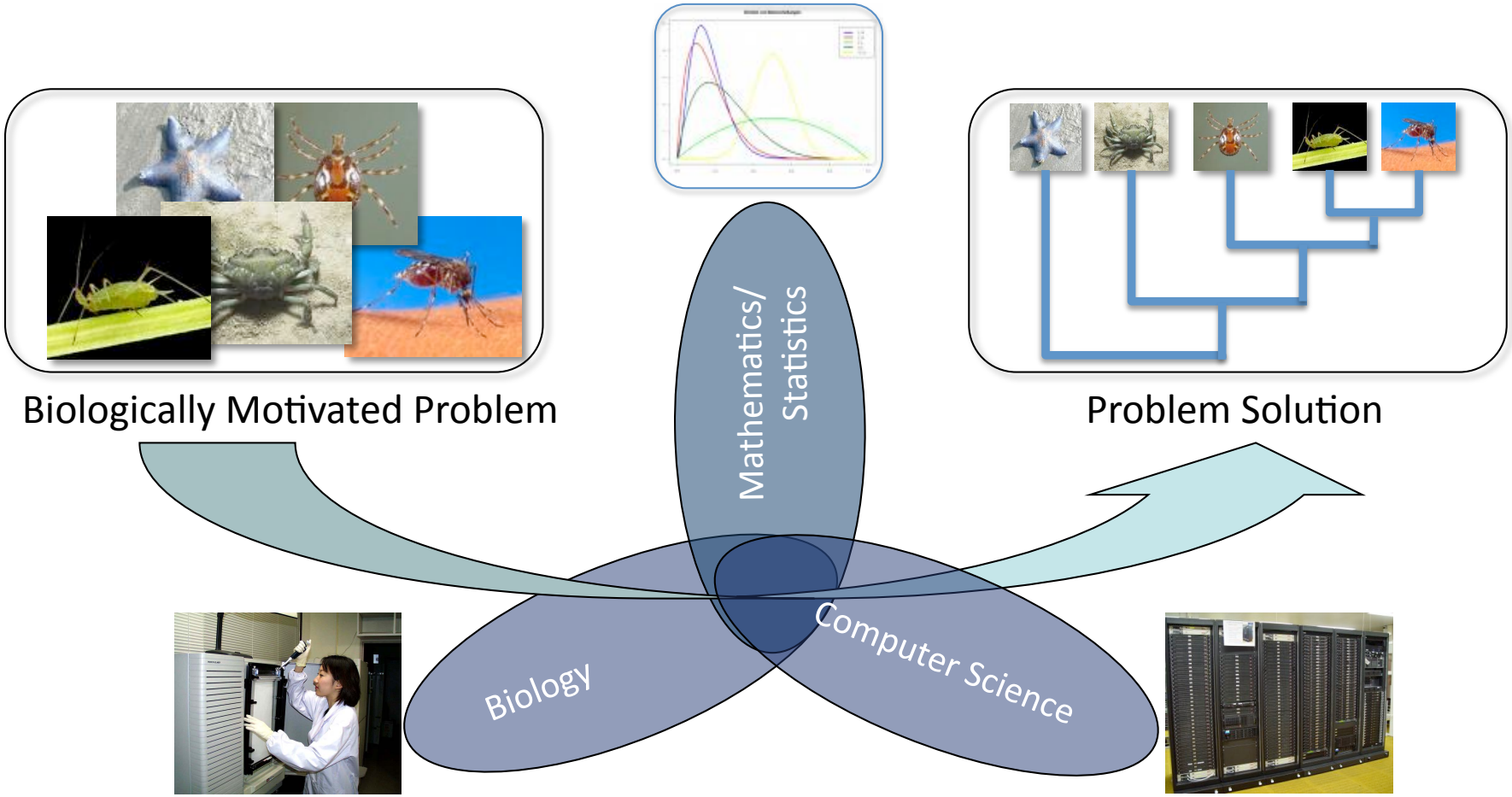
PhD Students



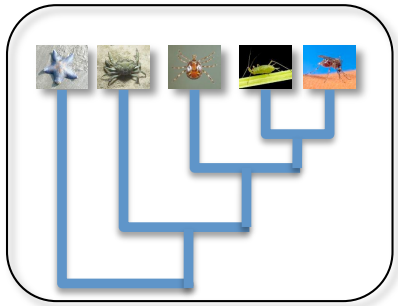
PostDocs

Administration

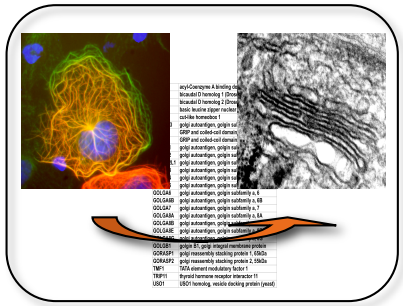
What is Bioinformatics?



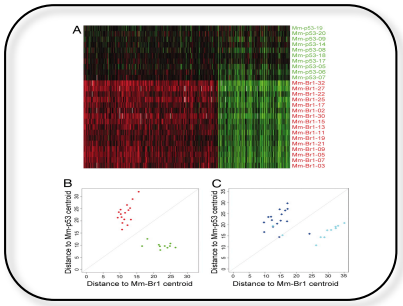
Overview of ongoing projects



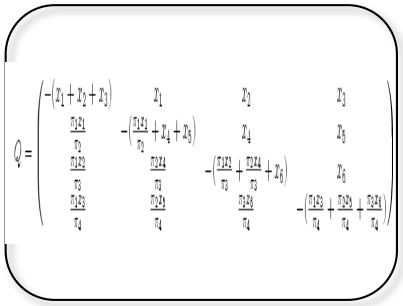
Reconstruction
(e.g., evol. relationships)



Prediction
(e.g., function)



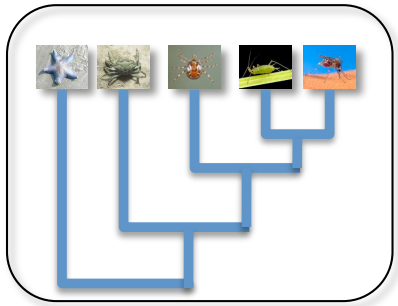
Characterization
(e.g., tissue)



Modeling
(e.g., molec. evolution)

Processing/Management/Visualization of Data

Overview of ongoing projects



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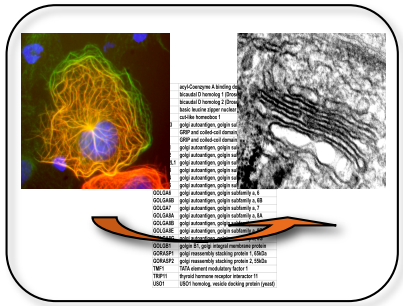
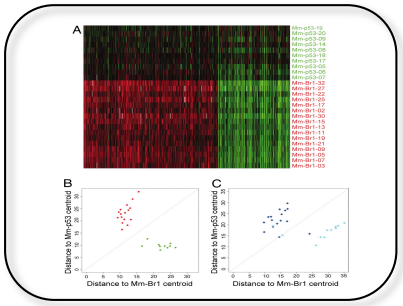


Prediction
(e.g., function)



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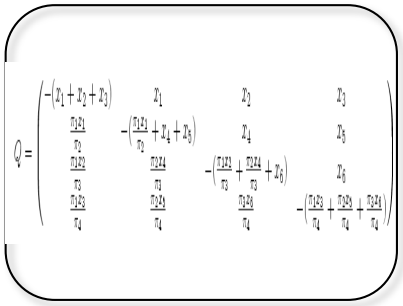


Modeling
(e.g., molec. evolution)

Processing/Management/Visualisization of Data

Deep Metazoan Phylogeny/Eukaryote Phylogeny

Evolution of gene families

Phylogenetic profiling/Evolution of functional modules

Processing and analysis of high throughput sequencing data (RNASeq/genomic sequencing)

Statistical analysis of gene expression data

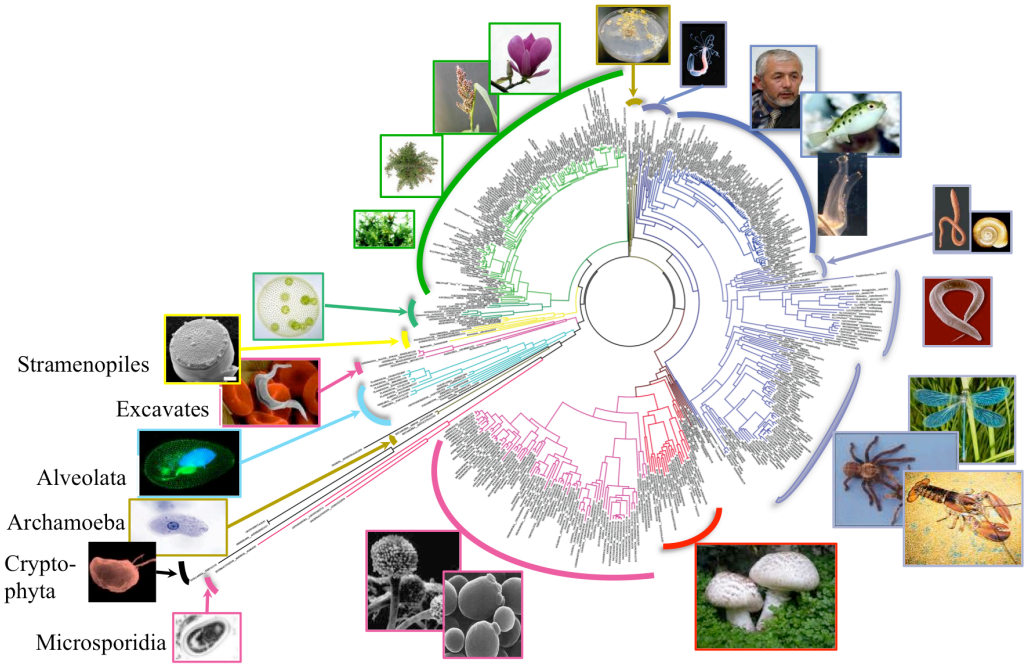
Automation via complex scientific workflows

Modeling dynamics of sequence evolution under constraints

Biodiversity/Phylogenetic Diversity

Evolutionary Bioinformatics: Potential and Challenges

– The Extended Scaffold –



ML tree; 500 taxa; 113 genes; 14,859 aa; matrix filled to 76%