

AIT – BIOINFORMATICS

Status of server infrastructure

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AIT - Austrian Institute of Technology

Seibersdorf
Labor GmbH

Nuclear
Engineering
Seibersdorf
GmbH

Energy

Digital Safety &
Security

Vision, Automation &
Control

Health &
Bioresources

Mobility Systems

Low-Emission
Transport

Technology
Experience

Innovation Systems
& Policy

- Bioresources
- **Molecular Diagnostics**
- Biomedical Systems
- Digital Health Information Systems

- Identification and validation of biomarkers
- Assay development
- Saliva diagnostics
- Development of sensors
- System integration & point-of-care

MOVE TO ANOTHER BUILDING (MARCH 9TH)



GIEFINGGASSE 4

- Move servers from Muthgasse to new building



INFRASTRUCTURE UPDATE

New infrastructure

Machine ID	HDD (TB)	RAM (GB)	Cores	Notes
MARA	18	256	40	3 x 1080 GTX
Backup SAN	104	128	32	Located at different building
CX	2,2 (SSD)	1000	240	AIT partner group

Presented infrastructure

Machine ID	HDD (TB)	RAM (GB)	Cores
C01	20	512	64
C02	20	128	64
C03	20	256	64
C04	20	256	64
C05	12	256	64
C06 (located in AIT DMZ)	16	48	16
C07 (located in AIT DMZ)	24	128	16
S01 (SAN)	96	64	32
	216	1648	384

APPLICATIONS



APPLICATIONS

NGS Data analysis (internal & external data)

- AmpliconSeq, WES
- BisulfiteSeq
- Genome Assembly

Assay design

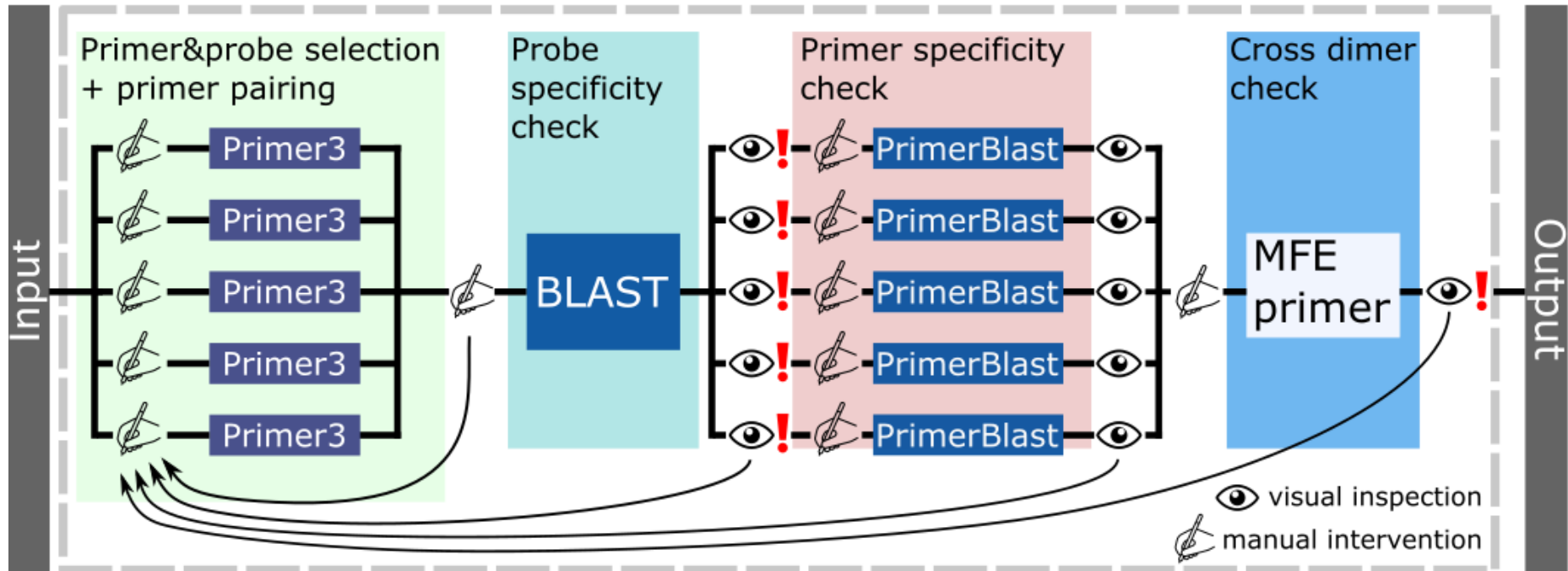
- Various web-applications
- Shiny & Wooley (Interface for Python scripts)

Virtualizations

- LXC
- Docker

OLI2GO

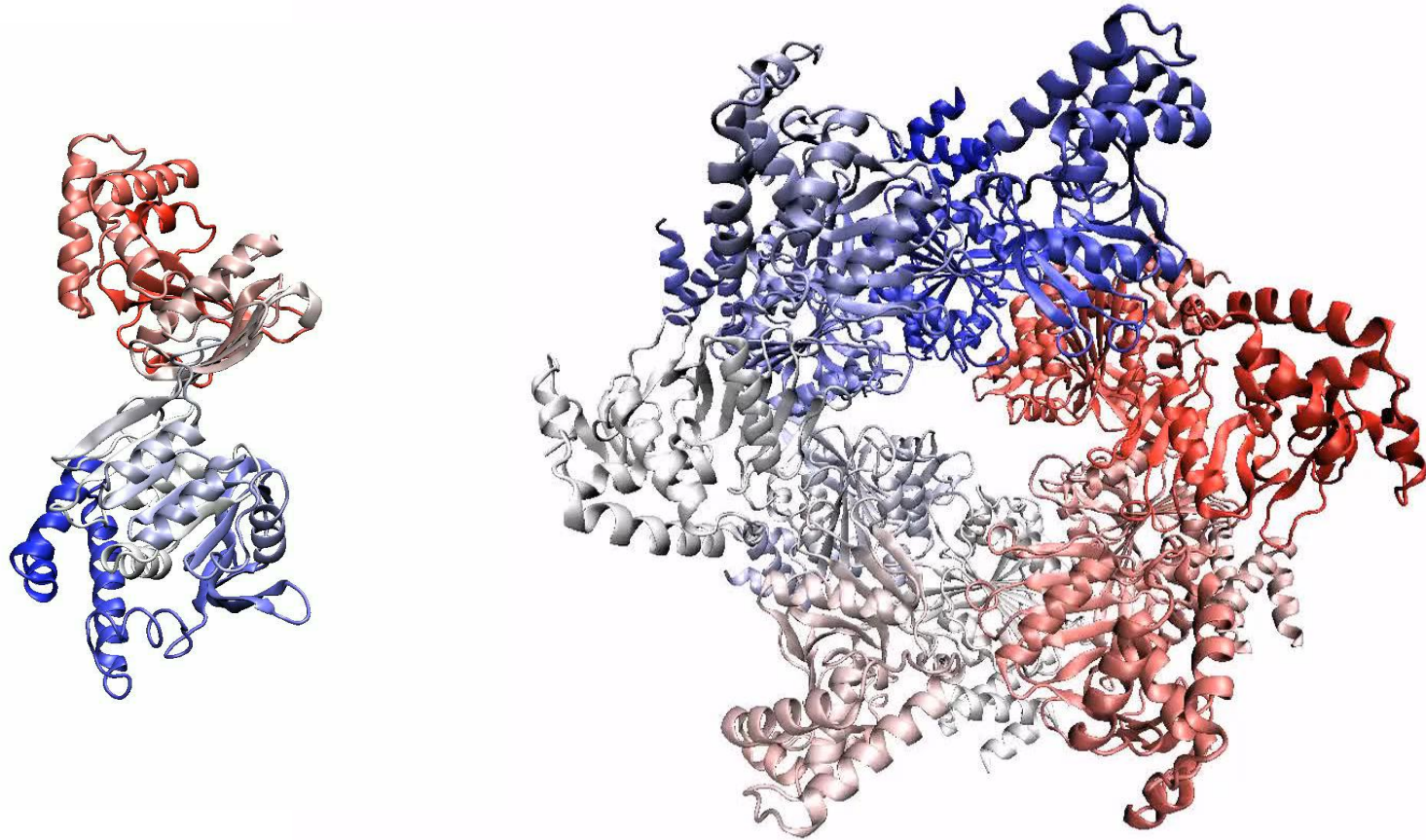
- Automated multiplex oligonucleotide design tool



MOLECULAR DYNAMICS SIMULATIONS

VideoMach unregistered

VideoMach unregistered



All-atom molecular simulations; Flagellum; 200nsec; Force field studies (Charmm or Amber); Gromacs

OEPPM

- Next meeting – 11.-12. October 2018



ÖSTERREICHISCHE
 PLATTFORM FÜR
 PERSONALISIERTE
 MEDIZIN

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