GERMAN NETWORK FOR BIOINFORMATICS INFRASTRUCTURE

MAX DELBRÜCK CENTER FOR MOLECULAR MEDICINE IN THE HELMHOLTZ ASSOCIATION
BIMSB THE BERLIN INSTITUTE FOR MEDICAL SYSTEMS BIOLOGY

RBC: BIMSB

RNA Bioinformatics Center: The Berlin Institute for Medical Systems Biology

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Short description of the project

We offer tools, services and training for the analysis of **RNA-binding proteins** and **post-transcriptional regulation.**

de.NBI services

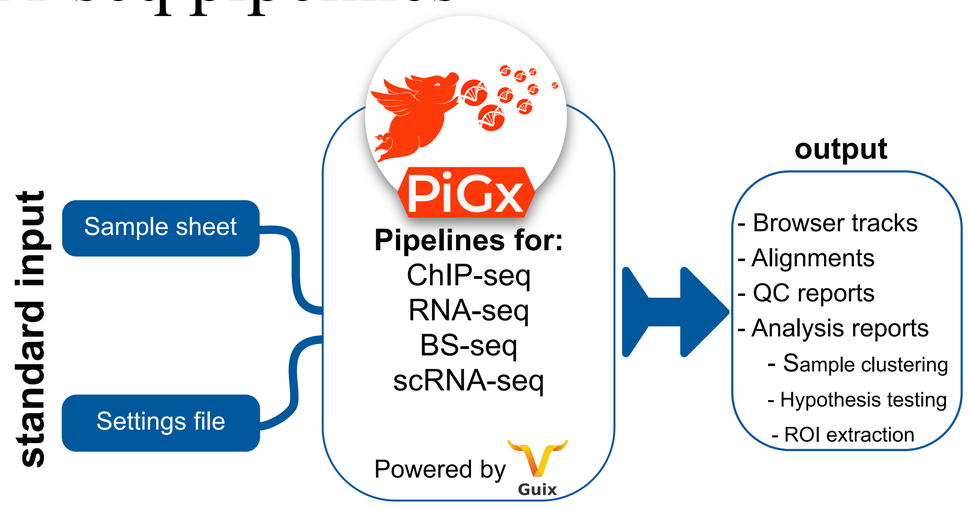
	Service	Description
Data-bases	Galaxy Server	Galaxy server at MDC
	doRiNA	A database of RNA interactions
	circBase	A database to explore and discover circular RNAs
RNA (Seq) Tools	PiGx	RNAseq and single-cell RNA-seq pipelines
	RCAS	RNA-centric annotation system
	NASTIseq	identifies cis-Natural Antisense Transcripts from RNA-seq data
	RiboTaper	Ribo-Seq analysis pipeline
miRNA Tools	PIPmiR	identifies novel plant miRNA genes from deep sequencing data
	PicTar	Web resource for microRNA targets
	miRDeep	microRNA detection tool in deep sequencing data
	miReduce	discovers motifs in mRNAs and correlates with gene expression changes
RBP Tools	PARalyzer	PAR-CLIP sequencing analysis
	micro-MUMMIE	microRNA target-site prediction in PAR-CLIP data
	cERMIT	finds optimal motifs in high-throughput ChIP or RIP datasets

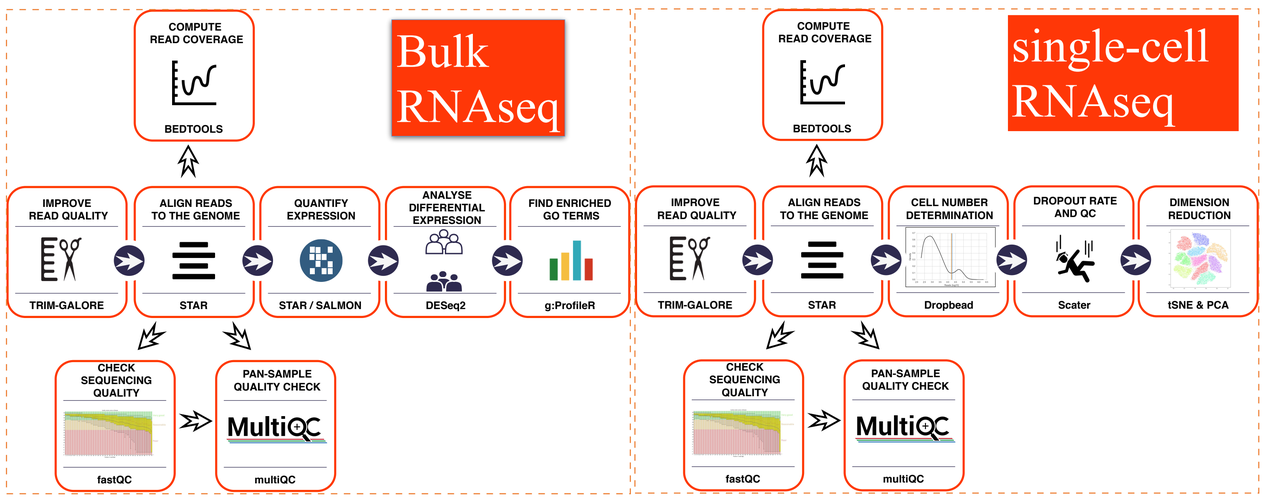
General information on the project

- **No. of staff paid from de.NBI grant:** 2
- **Other staff involved:** 3

Progress report

Contributed to PiGx bulk and single-cell RNA-seq pipelines





Maintained tools and databases

RCAS: Bioconductor package

~ 155 monthly downloads
~ 65 monthly unique users

Local Galaxy Server at MDC

~ 117 Total Users
~ 11 average monthly users
~ 44 average monthly visits

doRiNA database of RNA interactions

~ 2400 average monthly unique visitors
~ 6500 average monthly unique downloads

de.NBI Training and education

Provided one-on-one **mentorships** and **consultations**

Selected Publications

- Ricardo Wurmus, Bora Uyar, Brendan Osberg, Vedran Franke, Alexander Gosdschan, Katarzyna Wreczycka, Jonathan Ronen, Altuna Akalin. 2018. "PiGx: Reproducible genomics analysis pipelines with GNU Guix". GigaScience. doi.org/10.1093/gigascience/giy123

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Projektträger Jülich Forschungszentrum Jülich
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