



MANUÁLNÍ ANOTACE MAKROMOLEKULÁRNÍCH KOMPLEXŮ

EMBL-EBI

Daniel Pokorný





CO?

- protein-protein
- protein-DNA(RNA)
- protein-malá molekula

ODKUD?

- PDBe 
- Odborná literatura
- Experimentální data: IntAct, MINT

PROČ?

- Integrace izolovaných dat na jedno místo
- Zvýraznění důležitých vlastností komplexu
- Propojení s ostatními bioinf. databázemi (UniProt, InterPRO, IntEnz, Reactome, etc.)



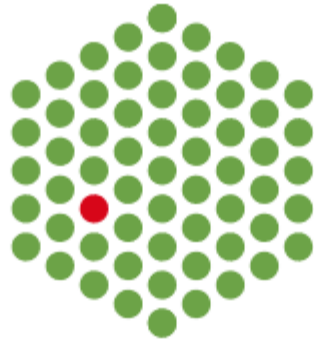
Zpřístupnění (nejen) strukturně-biologických dat širšímu okruhu uživatelů



JAK?

- Čtení, čtení, čtení, čtení, čtení
- Dvojstupňová kontrola – snížení možnosti lidské chyby

EMBL



European Molecular
Biology Laboratory

- Research units:
 - Cell biology and biophysics
 - Developmental biology
 - Genome biology
 - Structural and computational biology
- Sites:
 - Grenoble (FR)
 - Heidelberg, Hamburg (DE)
 - Monterotondo (IT)
 - Hinxton (UK)
 - Barcelona (ES)

EMBL-EBI



- European Bioinformatics Institute
- Wellcome Trust Genome Campus



EMBL-EBI



Alex Bateman

Senior Team Leader, Protein
sequence resources



Pedro Beltrao

Group Leader - Beltrao
research group



Ewan Birney

Director of EMBL-EBI and
Senior Scientist



Alvis Brazma

Senior Team Leader,
Functional Genomics



Anton Enright

Group Leader - Enright
research group



Paul Flicek

Senior Scientist and Team
Leader, Vertebrate Genomics



Moritz Gerstung

Group Leader: Computational
cancer biology



Nick Goldman

Group Leader - Goldman
research group



Zamin Iqbal

Research Group Leader -
Iqbal research group



Gerard Kleywegt

Senior Team Leader: Protein
Data Bank in Europe and
Kleywegt Research Group



John Marioni

Group Leader - Marioni
research group



Evangelia Petsalaki

Group Leader - Petsalaki
research group



Julio Saez-Rodriguez

Visiting Group Leader



Oliver Stegle

Group Leader - Stegle
research group



Christoph Steinbeck

Visiting Group Leader



Janet Thornton

Director Emeritus of EMBL-
EBI and Senior Scientist



Sandra Orchard




Team Leader - Orchard team: Molecular Interactions

Sandra Orchard is Team Leader for Molecular Interactions at EMBL-EBI, with a strong background in protein annotation. Her team is responsible for maintaining curation standards within the IntAct Molecular Interaction database, and also the Complex Portal protein complex reference resource. Sandra and her team provide hands-on training in how to make the most of bioinformatics resources for studying networks, pathways, interactions and complexes. She is a member and Treasurer of the Executive Committee of the International

Society for Biocuration.

Sandra and her team provide hands-on training in how to make the most of bioinformatics resources for studying networks, pathways, interactions and complexes. The Molecular Interaction Team offers placements to students with an interest in learning more about network analysis, data curation, Java development or the use of JavaScript for data visualisation.

orchard [at] ebi.ac.uk

 ORCID iD: [0000-0002-8878-3972](https://orcid.org/0000-0002-8878-3972)

Tel:+44 (0)1223 494 675 / Fax:

Services



Team members

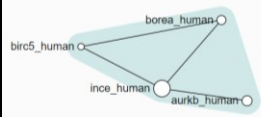


Chromosomal passenger complex

Homo sapiens; 9606

Evidence by physical interaction evidence in IntAct EBI-1555177

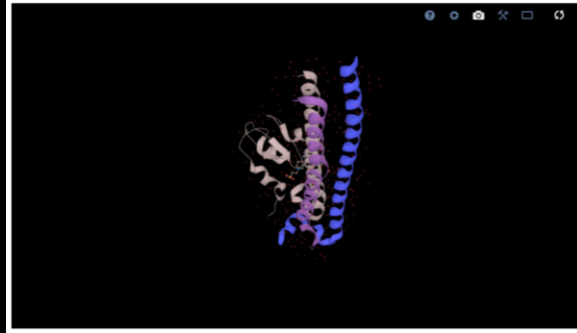
Expand All	Export SVG	Reset	Enlarge	Legend	Description	Stoichiometry
UniprotKB				<input type="radio"/>	protein - INCENP (unspecified role) Q9NQS7 Inner centromere protein	1
				<input type="radio"/>	protein - BIRC5 (unspecified role) O15392 Baculoviral IAP repeat-containing protein 5	1
				<input type="radio"/>	protein - AURKB (enzyme) Q96GD4 Aurora kinase B	1
				<input type="radio"/>	protein - CDCA8 (unspecified role) Q53HL2 Borealin	1



Properties

Survivin and borealin associate with N-terminal region of INCENP to form a tight three-helical bundle. C-terminal region of INCENP (IN-BOX) binds and activates Aurora B.

3D Structure



2qfa

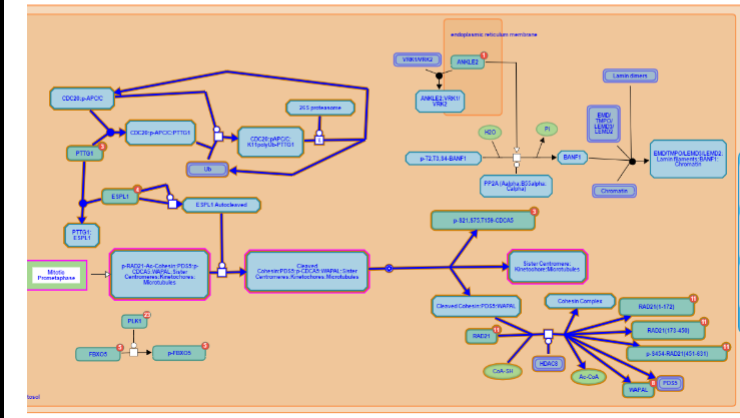
Pathways

Complex Identifier	Complex Name	Pathway Identifier
R-HSA-377876	Chromosome passenger complex [cytoso]	<ul style="list-style-type: none"> R-HSA-2467813 R-HSA-2500257 R-HSA-5063220 R-HSA-68877

Selected Complex: **Stable Identifier:** R-HSA-377876
Name: Chromosome passenger complex [cytoso]

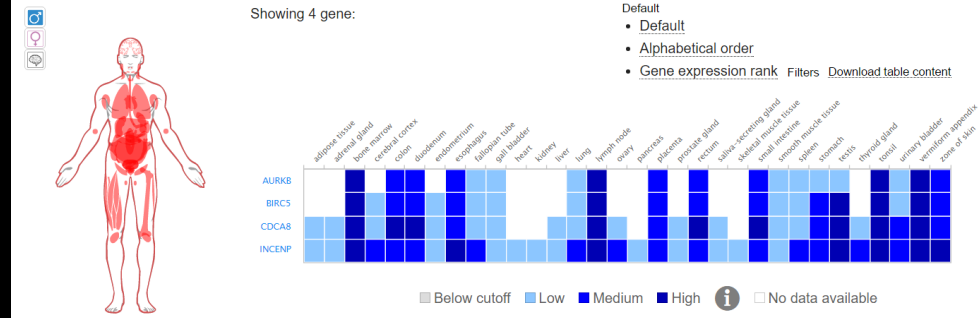
Selected Pathway: **Stable Identifier:** R-HSA-2467813
Name: Separation of Sister Chromatids

Open in Reactome



Expression

Gene Expression Map



See more expression data at [Expression Atlas](#).
This expression view is provided by [Expression Atlas](#).
Please direct any queries or feedback to arrayexpress-atlas@ebi.ac.uk

JAK NA TO

ELIXIR

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