

# ANNUAL DANISH BIOINFORMATICS CONFERENCE

**AUGUST 29-30, 2018**

PRACTICAL INFORMATION

CONFERENCE PROGRAMME

LIST OF PARTICIPANTS

ORGANISATION



## PRACTICAL INFORMATION

### CONTACT

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### VENUE

#### **SDU, UNIVERSITY OF SOUTHERN DENMARK**

CAMPUS TORV/PANORAMA AND AUDITORIUM O100.  
MAIN ENTRANCE AT SDU.

CAMPUSVEJ 55

5230 ODENSE

DENMARK

[WWW.SDU.DK](http://WWW.SDU.DK)

### DINNER VENUE

#### **RESTAURANT SCHIØTZ**

ODEON

ODEONS KVARTER 1  
5000 ODENSE C

DENMARK

[WWW.ODEONODENSE.DK/RESTAURANT-SCHIØTZ](http://WWW.ODEONODENSE.DK/RESTAURANT-SCHIØTZ)

# Annual Danish Bioinformatics Conference 2018

August 29-30, University of Southern Denmark, Campusvej 55, 5230 Odense, Denmark

## PROGRAMME

### DAY 1

Wednesday	Session	Chair
9:30 – 10:00	<i>Registration</i>	
10:00 – 10:15	<b>Welcome</b>	
10:15 – 11:45	<b>Deep Learning in Bioinformatics</b>	
10:15 – 11:00	<ul style="list-style-type: none"><li>• <b><i>Machine learning and statistics: Don't mind the gap.</i></b> Thomas Wiecki, Quantopian, US (Keynote)</li></ul>	<i>Simon Rasmussen Thomas Hamelryck</i>
11:00 – 11:45	<ul style="list-style-type: none"><li>• <b><i>Identifying overdiagnosis cases using temporal disease trajectories.</i></b> Isabella Jørgensen, University of Copenhagen, DK</li><li>• <b><i>SignalP 5.0: improved signal peptide predictions across the tree of life using deep neural networks.</i></b> Jose Juan Almagro Armenteros, Technical University of Denmark, DK</li></ul>	
11:45 – 12:30	<i>Lunch</i>	
12:30 – 14:00	<b>RNA and transcriptomics</b>	
12:30 – 13:15	<ul style="list-style-type: none"><li>• <b><i>Analysis of transcriptional dynamics with single-cell data.</i></b> Peter Kharchenko, Harvard Medical School, US (Keynote)</li></ul>	<i>Jan Gorodkin</i>
13:15 – 13:40	<ul style="list-style-type: none"><li>• <b><i>Computational discovery of novel classes of bacterial non-coding RNAs.</i></b> Zasha Weinberg, Leipzig University, DE</li></ul>	
13:40 – 14:10	<ul style="list-style-type: none"><li>• <b><i>Cancer, immunotherapy and endogenous retroviral proteins.</i></b> Palle Villesen, Aarhus University, DK</li><li>• <b><i>SHARP: Single-Cell RNA-Seq Hyper-Fast and Accurate Processing via Ensemble Random Projection.</i></b> Kyoung Jae Won, University of Copenhagen, DK</li><li>• <b><i>Where to start: Rethinking gene annotation of Bacillus subtilis with high-throughput methods.</i></b> Adrian Geissler, University of Copenhagen, DK</li></ul>	

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### DAY 1: Continued

Wednesday	Session	Chair
14:10 – 14:30	<i>Break</i>	
14:30 – 16:00	<b>Complex trait analysis using multi-omics data</b>	
14:30 – 15:15	<ul style="list-style-type: none"><li>• <b><i>Integrative analysis of omics summary data reveals putative mechanisms underlying complex traits.</i></b> Prof. Jian Yang, IMB, University of Queensland, AU (Keynote)</li></ul>	
15:15 – 15:30	<ul style="list-style-type: none"><li>• <b><i>Host genetics and microbial impact on plasma metabolites and proteomics is linked to the disease risk.</i></b> Associate Prof. Jingyuan Fu, Department of Genetics, University Medical Centre Groningen, University of Groningen, NL</li></ul>	Anna Schönherz
15:30 – 15:45	<ul style="list-style-type: none"><li>• <b><i>Applying integrative genomic analyses to investigate the genetic signature of variability in drug response in <i>Drosophila melanogaster</i>.</i></b> Palle Duun Rohde, Department of Molecular Biology and Genetics, Aarhus University, DK</li></ul>	
15:45 – 16:00	<ul style="list-style-type: none"><li>• <b><i>Defects in Calcium signalling cause Congenital Heart Disease.</i></b> Jose Mg Izarzugaza, Technical University of Denmark, DK</li></ul>	
16:00 – 16:15	<i>Break</i>	
16:15 – 17:15	<b>POSTER SESSION</b>	
17:15 – 18:15	<b>Computational Proteomics</b>	
	<ul style="list-style-type: none"><li>• <b><i>Strategies for longitudinal highly robust SWATH-MS analysis.</i></b> Prof. Robert Moritz, Institute for Systems Biology, US (Keynote)</li></ul>	Veit Schwämmle
19:30	<i>Dinner at Restaurant Schiøtx Odeon, Odeons Kvarter 1, 5000 Odense</i>	

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### DAY 2

Thursday	Session	Chair
9:00 – 10:30	<b>Population genomics</b>	
09:00 – 09:45	<ul style="list-style-type: none"><li>• <b>Functional and evolutionary impact of inversions in the human genome.</b> Prof. Mario Caceres, ICREA Research Professor, Universitat Autònoma de Barcelona, ES (Keynote)</li></ul>	<i>Kasper Munch David Castellano</i>
09:45 – 10:00	<ul style="list-style-type: none"><li>• <b>Heritability estimates in admixed populations from Greenland.</b> Georgios Athanasiadis, University of Copenhagen, DK</li></ul>	
10:00 – 10:15	<ul style="list-style-type: none"><li>• <b>Modelling genetic influence on familial risk.</b> Jacob Vb. Hjelmberg, University of Southern Denmark, DK</li></ul>	
10:15 – 10:30	<ul style="list-style-type: none"><li>• <b>Parental age and sex affects mitochondrial DNA copy number in human blood and in <i>Drosophila melanogaster</i>.</b> Jonas Mengel-From, University of Southern Denmark, DK</li></ul>	
10:30-10:45	<i>Break</i>	
10:45 – 11:00	<b>Computational Infrastructures</b> <ul style="list-style-type: none"><li>• <b>New Danish Computational infrastructures.</b> Peter Løngreen, The Danish National Genome Center, DK</li></ul>	
11:00 – 11:20	<b>ELIXIR Denmark</b>	<i>Jon Ison Piotr Chmura</i>
11:20 – 12:00	<b>Clinical Bioinformatics session</b> <ul style="list-style-type: none"><li>• <b>Clinical applied genetics in the age of polygenic risk scores.</b> Lasse Folkersen, Region Hovedstaden, DK</li></ul>	
12:00 – 12:45	<i>Lunch</i>	

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Thursday	Session	Chair
12:45 – 13:45	<b>POSTER SESSION</b>	
13:45 – 14:00	<i>Break</i>	
14:00 – 15:30	<b>Integration of Omics data for molecular and personalized medicine</b>	<i>Allan Stensballe</i>
14:00 – 14:45	<ul style="list-style-type: none"><li>• <b><i>Implementing personalized medicine in Denmark: Integration of clinical data and omics analysis pipelines for clinical work and research.</i></b> Charles Vesteghem and Martin Bøgsted, Aalborg University, DK (Keynote)</li></ul>	
14:45 – 15:00	<ul style="list-style-type: none"><li>• <b><i>Individual Variations in Plasma Metabolites are Driven by Diet, Genetics and Gut Microbiome.</i></b> Lianmin Chen, University of Groningen, University Medical Center Groningen, Department of Genetics</li></ul>	
15:00 – 15:15	<ul style="list-style-type: none"><li>• <b><i>Detection of Subpopulations and Drug Resistance Mutations in Cytomegalovirus by Amplicon Sequencing.</i></b> Mette Jørgensen, Rigshospitalet, DK</li></ul>	
15:15-15:30	<ul style="list-style-type: none"><li>• <b><i>A Clinical Case of Working with Hepatitis B Virus.</i></b> Nina A. H. Madsen, Aalborg University Hospital, DK</li></ul>	
15:30 – 15:45	<ul style="list-style-type: none"><li>• <b><i>Interdisciplinary exploration of single-cell omics data in stem cells.</i></b> Kedar Natarajan, University of Southern Denmark, DK</li></ul>	
15:45 – 16:00	<i>Meeting closure &amp; Announcement of best poster</i>	

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## LIST OF PARTICIPANTS

Name	Institution	Occupation
Aaron Pfennig	Hochschule Reutlingen	Biomedicine
Adham Mandour	UCPH - University of Copenhagen	Student
Adrian Geissler	UCPH - University of Copenhagen	PhD Candidate
Afsaneh Mohammadnejad	SDU - University of Southern Denmark	PhD student
Agnete Lundgaard	UCPH - University of Copenhagen	Research Assistant
Ahmad Salim Al-Sibahi	UCPH - University of Copenhagen	Industrial Postdoc
Albin Sandelin	UCPH - University of Copenhagen	Professor
Alejandro Aguayo Orozco	UCPH - University of Copenhagen	PhD Student
Alexander Junge	UCPH - University of Copenhagen	Postdoc
Allan Stensballe	AAU - Aalborg University	Associate Professor
Anna Schönherz	AU - Aarhus University	Post doc
Anne Saaby Schmidt	LEO Pharma A/S	PhD Student
Anne-Mette Bjerregaard	DTU - Technical University of Denmark	Postdoc
Annie Borch	DTU - Technical University of Denmark	Student
Antonio Ortega	UCPH - University of Copenhagen	Master's student
Bernt Guldbrandtsen	AU - Aarhus University	Associate professor
Birkir Reynisson	DTU - Technical University of Denmark	PhD Student
Carlotta Porcelli	UCPH - University of Copenhagen	Student
Cecilie Bohn	DTU - Technical University of Denmark	Student assistant
Charles Vesteghem	AAU - Aalborg University	Solution Architect
Christian Garde	Evaxion Biotech	Bioinformatician
Christian Grønbæk	UCPH - University of Copenhagen	post doc
Clara Albiñana	AU - Aarhus University	Student
Cristina Leal Rodríguez	UCPH - University of Copenhagen	PhD student
David Castellano	AU - Aarhus University	Postdoc
Dhouha Grissa	UCPH - University of Copenhagen, Novo Nordisk Foundation CPR	post-doc
Dimitrios Chouliaras	UCPH - University of Copenhagen	Student
Dominika Hozakowska-Roszkowska	SDU - University of Southern Denmark	Student
Eduardo Moreno	DTU - Technical University of Denmark	MSc student - Bioinformatics & Systems Biology
Francesco Russo	UCPH - University of Copenhagen	Postdoc
Frank Panitz	AU - Aarhus University	Senior Scientist
Georgios Athanasiadis	UCPH - University of Copenhagen	Postdoc
Giulia Corsi	UCPH - University of Copenhagen	PHD student
Haji Juma	Century Attorneys	IT Manager
Hans Ienasescu	DTU - Technical University of Denmark	Lead Curator
Henrike Zschach	UCPH - University of Copenhagen	PostDoc
Ioannis Chrysostomakis	UCPH - University of Copenhagen	Student
Isabella Jørgensen	UCPH - University of Copenhagen, NNF Center for Protein Research	PhD student

Jacob Vb. Hjelmberg	SDU - University of Southern Denmark	Professor in Biostatistics
Jakob Vesterstrøm	QIAGEN Aarhus	Bioinformatics Software Developer
Jan Christian Refsgaard	Intomics A/S	Bioinformatician
Jan Gorodkin	UCPH - University of Copenhagen	Professor
Jeppe Hallgren	UCPH - University of Copenhagen	MSc Student
Jesper Lund	SDU - University of Southern Denmark	Ph.D. Student
Jette Bornholdt	UCPH - University of Copenhagen	Assistant professor
Jian Yang	Institute for Molecular Bioscience, The University of Queensland	Professor
Jingyuan Fu	University Medical Centre Groningen	Associate Professor
Joel Correa Da Rosa	Leo-Pharma	Biostatistician
Jon Ison	DTU - Technical University of Denmark	Senior Scientist
Jonas Mengel-From	SDU - University of Southern Denmark	Associate Professor
Jose Juan Almagro Armenteros	DTU - Technical University of Denmark	PhD Student
Jose Mg Izarzugaza	DTU - Technical University of Denmark	Associate professor, group leader
Juan Manuel Medina	UCPH - University of Copenhagen	MSc student Bioinformatics
Junil Kim	UCPH - University of Copenhagen	Postdoctoral researcher
Kamilla Kjærgaard Munk	DTU - Technical University of Denmark	PhD student
Kasper Munch	AU - Aarhus University	Associate professor
Katrine Eriksen	SDU - University of Southern Denmark	Student
Kedar Natarajan	SDU - University of Southern Denmark	Assistant Professor
Kyoung Jae Won	UCPH - University of Copenhagen	Associate Professor
Lars Andersen	SDU - University of Southern Denmark	PhD student
Lars Rønn Olsen	DTU - Technical University of Denmark	Associate professor
Lars-Erik Holm	AU - Aarhus University	Senior Scientist
Lasse Folkersen	Region Hovedstaden	Lead Scientist
Li Jiang	LEO Pharma	Scientist
Lianmin Chen	University of Groningen, University Medical Center Groningen, Department of Genetics	PhD student
Line Larsen	Amplexa Genetics	lab manager
Mads Sønderkær	Aalborg University Hospital	Senior Bioinformatician
Mads Thomassen	SDU - University of Southern Denmark	molecular geneticist
Magnus Jespersen	SDU - University of Southern Denmark	Masters student
Malte Thodberg	UCPH - University of Copenhagen	Postdoctoral Researcher
Mario Caceres	Universitat Autònoma de Barcelona	ICREA Research Professor
Martin Bøgsted	AAU - Aalborg University	Professor
Martin Proks	SDU - University of Southern Denmark	Master student
Marzieh Joukar	SDC	Software developer
Mathias Perslev	UCPH - University of Copenhagen	Student
Mengjun Wu	UCPH - University of Copenhagen	PhD
Mette Jørgensen	Rigshospitalet	Bioinformatic scientist



Migle Gabrielaite	UCPH - University of Copenhagen, Rigshospitalet, Center for genomic medicine	Student in UCPH; bioinformatics student assistant in Rigshospitalet
Monica Toft Hannani	DTU - Technical University of Denmark	Master's student
Nadezhda Doncheva	UCPH - University of Copenhagen	PostDoc
Natthawut Adulyanukosol	UCPH - University of Copenhagen	MSc student
Nina A. H. Madsen	Aalborg University Hospital	Bioinformatician
Oana Palasca	UCPH - University of Copenhagen	PhD student
Palle Duun Rohde	AU - Aarhus University	Postdoc
Palle Villesen	AU - Aarhus University	Associate professor
Patrick Ettenhuber	QIAGEN Aarhus	Senior Bioinformatics Scientist
Pau Piera	UCPH - University of Copenhagen	Master Student
Peter Kharchenko	Harvard Medical School	researcher
Peter Løngreen	Det Nationale Genomcenter	Deputy Director, IT and Infrastructure
Piotr Chmura	DTU - Technical University of Denmark	Technical Coordinator
Poul Liboriussen	Qiagen Aarhus	Software developer
Qianqian Zhang	University of Copenhagen	Postdoc
Qin Hao	Amplexa Genetics	bioinformatician
Rasmus Brøndum	Aalborg University Hospital	Senior Bioinformatician
Robert Moritz	Institute for Systems Biology	Professor
Rute Fonseca	UCPH - University of Copenhagen	Associate Professor
Simon Rasmussen	DTU - Technical University of Denmark	Associate Professor
Sonia Abella	UCPH - University of Copenhagen	MSc Student
Stefan Seemann	UCPH - University of Copenhagen	Associate Prof., Ph.D.
Steven Pilger	UCPH - University of Copenhagen	Master Student
Søren Brunak	DTU - Technical University of Denmark	Professor
Tammi Vesth	DTU - Technical University of Denmark	Assistant professor
Thilde Terkelsen	Danish Cancer Society Research Center	PhD Student
Thomas Doktor	SDU - University of Southern Denmark	Postdoc
Thomas Hamelryck	UCPH - University of Copenhagen	Associate professor
Thomas Trolle	Evaxion Biotech	Bioinformatician
Tobias Bergmann	UCPH - University of Copenhagen	PhD Student
Tobias Frisch	SDU - University of Southern Denmark	PhD Student
Valentina Hekimova	SDU - University of Southern Denmark	Student
Veit Schwämmle	SDU - University of Southern Denmark	Assistant professor
Vivi Gregersen	QIAGEN Aarhus	Senior Bioinformatics Scientist
Weilong Li	SDU - University of Southern Denmark	PhD Student
Zasha Weinberg	Leipzig University	Postdoc
Zsuzsanna Etches	QIAGEN Aarhus	Senior Bioinformatics Scientist

## ORGANISATION

### ELIXIR DENMARK STEERING GROUP:

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PETER LØNGREEN, LEADER OF HPC, DEPUTY HEAD OF NODE, DTU  
SØREN BRUNAK, PROFESSOR, HEAD OF ELIXIR DENMARK, DTU, UCPH, AND  
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### CONFERENCE PROGRAMME COMMITTEE:

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