



## IMPRESS GENOMICS AND BIOINFORMATICS WORKSHOP 2015

# 27-30 October 2015 Leiden, The Netherlands



Dear Marie Curie fellows and other interested scientists,

It is a great pleasure to announce the IMPRESS Genomics and Bioinformatics Workshop to be held in Leiden, The Netherlands, from 27 till 30 October 2015.

**Aim:** Open workshop for Marie Curie fellows and other interested scientists who wish to learn more about the field of genomics and bioinformatics, including sequencing and bioinformatics tools, genomics, transcriptomics and hands-on practice.

**Program:** A four-day workshop with keynote lectures and hands-on sections on processing of Nextgen sequencing data. A detailed preliminary program is shown on the reverse side.

Accommodation: The venue of the meeting will be the Auditorium and Foyer of the Biopartner 1 building at the Bioscience Park in Leiden. Address: J.H. Oortweg 21, 2333 CH Leiden, The Netherlands. Several excellent hotels are located in close vicinity to the Leiden Bioscience Park. Check e.g. <u>www.booking.com</u> for an up-to-date overview and to make your reservation.

**Costs:** Registration fee is € 450,00 for IMPRESS Marie Curie fellows and € 600,00 for external participants. The registration fee includes the costs of lunches and coffee/tea breaks (accommodation and dinner are not included).

**Registration:** The deadline for registration is: 1 October 2015. The capacity for external participants is limited to 15 people. Selection will be on "first come, first served" basis. Please register via e-mail: <u>workshop2015@zfscreens.com</u>

Looking forward to your participation in the IMPRESS Genomics and Bioinformatics Workshop.

Kind regards,

#### The organizers:

- Ron Dirks (ZF-screens BV / Leiden University, Leiden, The Netherlands; dirks@zfscreens.com)
- Hans Jansen (ZF-screens BV, Leiden, The Netherlands; jansen@zfscreens.com)









# Preliminary program of the

# **IMPRESS Genomics and Bioinformatics Workshop 2015**

Time at at	Tania	Tuesday 27 October 2015	Smaalzar
Timeslot	Topic	Description	Speaker
1.45 - 9.00 h	Commain-4-1-	arrival with coffee/tea	Dr. Hans Iar
9.00 - 10.00 h	Sequencing tools (lecture)	From eel blood to genome sequence: past and present strategies (part 1)	Dr. Hans Jansen ZF-screens BV, Leiden
0.00 - 11.00 h	Sequencing tools (lecture)	From eel blood to genome sequence: past and present strategies (part 2)	Dr. Hans Jansen ZF-screens BV. Leiden
1.00 - 11.30 h	(lecture)	coffee/tea break	ZF-screens BV, Leiden
1.30 - 12.30 h	Bioinformatics tools (lecture)	Software tools for genome assembly	Dr. Christiaan Henkel Leiden University
12.30 - 13.30 h		lunch break	D D D'1
13.30 - 17.00 h	Hands-on practice	European eel gene annotations CLC-Bio Main Workbench	Dr. Ron Dirks ZF-screens BV, Leiden
The Real Property of the	v	Vednesday 28 October 2015	
Timeslot	Topic	Description	Speaker
3.45 - 9.00 h	Topic	arrival with coffee/tea	opeaner
9.00 - 10.00 h	Sequencing tools (lecture)	From eel fin clip to FASTQ file: Tissue sampling and storage, RNA isolation, library preps and runs	Dr. Hans Jansen ZF-screens BV, Leiden
10.00 - 11.00 h	Sequencing tools (lecture)	From eel fin clip to transcriptome: Variations of RNAseq: low input RNA, microRNAs, nanoCage	Dr. Hans Jansen ZF-screens BV, Leiden
11.00 - 11.30 h		coffee/tea break	
11.30 - 12.30 h	Bioinformatics tools (lecture)	RNAseq data processing: Filtering, alignment against reference genome, statistical analysis	Dr. Hans Jansen ZF-screens BV, Leiden
12.30 - 13.30 h		lunch break	
13.30 - 16.00 h	Hands-on practice	From eel fin clip FASTQ file to Excel file with differentially expressed genes	Dr. Hans Jansen ZF-screens BV, Leiden
16.00 - 17.00 h	Bioinformatics tools	Creating a de novo transcriptome	Dr. Iris Kolder
	(demo)	reference file for non-model organisms	Leiden University
		Thursday 29 October 2015	
Timeslot	Topic	Description	Speaker
.45 - 9.00 h	Topic	arrival with coffee/tea	opeakei
.45-9.001		Advanced analysis of transcriptomes:	1 1 1
0.00 - 10.00 h	Bioinformatics tools (lecture)	alternative splicing (DEXSeq), whole transcript sequencing (MinION)	Dr. Hans Jansen ZF-screens BV, Leiden
10.00 - 11.00 h	Genomics tools (lecture)	Verification of RNAseq data: advanced qPCR tools	Dr. Han Zendman NYtor BV, Nijmegen
1.00 - 11.30 h	(lecture)		N Hor BV, Nijmegen
1.00 - 11.50 n			
130-12301	Genomics tools	coffee/tea break	Dr. Walter Pirovano
	Genomics tools (lecture)	Visualization of genomics results	Dr. Walter Pirovano BaseClear BV, Leiden
	(lecture)	Visualization of genomics results lunch break	BaseClear BV, Leiden
12.30 - 13.30 h		Visualization of genomics results lunch break Advanced analysis of eel fin clip RNAseq data	Dr. Walter Pirovano BaseClear BV, Leiden Dr. Peter Racz ZF-screens BV, Leiden
11.30 - 12.30 h 12.30 - 13.30 h 13.30 - 14.30 h 14.30 - 17.00 h	(lecture) Genomics tools	Visualization of genomics results lunch break Advanced analysis of eel fin clip	BaseClear BV, Leiden Dr. Peter Racz
12.30 - 13.30 h 13.30 - 14.30 h	(lecture) Genomics tools (lecture)	Visualization of genomics results lunch break Advanced analysis of eel fin clip RNAseq data publishing RNAseq results: Venn diagrams, heat maps, pathway analysis	BaseClear BV, Leiden Dr. Peter Racz ZF-screens BV, Leiden Dr. Peter Racz
12.30 - 13.30 h 13.30 - 14.30 h 14.30 - 17.00 h	(lecture) Genomics tools (lecture) Hands-on practice	Visualization of genomics results lunch break Advanced analysis of eel fin clip RNAseq data publishing RNAseq results: Venn diagrams, heat maps, pathway analysis Friday 30 October 2015	BaseClear BV, Leiden Dr. Peter Racz ZF-screens BV, Leiden Dr. Peter Racz ZF-screens BV, Leiden
12.30 - 13.30 h 13.30 - 14.30 h 14.30 - 17.00 h Timeslot	(lecture) Genomics tools (lecture)	Visualization of genomics results Iunch break Advanced analysis of eel fin clip RNAseq data publishing RNAseq results: Venn diagrams, heat maps, pathway analysis Friday 30 October 2015 Description	BaseClear BV, Leiden Dr. Peter Racz ZF-screens BV, Leiden Dr. Peter Racz
12.30 - 13.30 h 13.30 - 14.30 h 14.30 - 17.00 h Timeslot 8.45 - 9.00 h	(lecture) Genomics tools (lecture) Hands-on practice Topic Genomics tools	Visualization of genomics results lunch break Advanced analysis of eel fin clip RNAseq data publishing RNAseq results: Venn diagrams, heat maps, pathway analysis Friday 30 October 2015	BaseClear BV, Leiden Dr. Peter Racz ZF-screens BV, Leiden Dr. Peter Racz ZF-screens BV, Leiden Speaker Dr. Christiaan Henkel
12.30 - 13.30 h 13.30 - 14.30 h 14.30 - 17.00 h Timeslot 8.45 - 9.00 h 9.00 - 10.00 h	(lecture) Genomics tools (lecture) Hands-on practice Topic Genomics tools (lecture) Genomics tools	Visualization of genomics results lunch break Advanced analysis of eel fin clip RNAseq data publishing RNAseq results: Venn diagrams, heat maps, pathway analysis Friday 30 October 2015 Description arrival with coffee/tea Genome evolution	BaseClear BV, Leiden Dr. Peter Racz ZF-screens BV, Leiden Dr. Peter Racz ZF-screens BV, Leiden Speaker Dr. Christiaan Henkel Leiden University Dr. Hans Komen
12.30 - 13.30 h 13.30 - 14.30 h 14.30 - 17.00 h Timeslot 8.45 - 9.00 h 9.00 - 10.00 h 10.00 - 11.00 h	(lecture) Genomics tools (lecture) Hands-on practice Topic Genomics tools (lecture)	Visualization of genomics results lunch break Advanced analysis of eel fin clip RNAseq data publishing RNAseq results: Venn diagrams, heat maps, pathway analysis Friday 30 October 2015 Description arrival with coffee/tea Genome evolution Selective fish breeding	BaseClear BV, Leiden Dr. Peter Racz ZF-screens BV, Leiden Dr. Peter Racz ZF-screens BV, Leiden Speaker Dr. Christiaan Henkel Leiden University
12.30 - 13.30 h 13.30 - 14.30 h 14.30 - 17.00 h Timeslot 8.45 - 9.00 h 9.00 - 10.00 h 10.00 - 11.00 h 11.00 - 11.30 h	(lecture) Genomics tools (lecture) Hands-on practice Topic Genomics tools (lecture) Genomics tools (lecture)	Visualization of genomics results lunch break Advanced analysis of eel fin clip RNAseq data publishing RNAseq results: Venn diagrams, heat maps, pathway analysis Friday 30 October 2015 Description arrival with coffee/tea Genome evolution Selective fish breeding coffee/tea break	BaseClear BV, Leiden Dr. Peter Racz ZF-screens BV, Leiden Dr. Peter Racz ZF-screens BV, Leiden Speaker Dr. Christiaan Henkel Leiden University Dr. Hans Komen Wageningen University
12.30 - 13.30 h 13.30 - 14.30 h 14.30 - 17.00 h Timeslot 8.45 - 9.00 h 9.00 - 10.00 h 10.00 - 11.00 h 11.00 - 11.30 h 11.30 - 12.30 h	(lecture) Genomics tools (lecture) Hands-on practice Topic Genomics tools (lecture) Genomics tools	Visualization of genomics results lunch break Advanced analysis of eel fin clip RNAseq data publishing RNAseq results: Venn diagrams, heat maps, pathway analysis Friday 30 October 2015 Description arrival with coffee/tea Genome evolution Selective fish breeding coffee/tea break Creating superscaffolds using Irys systems from Bionano Genomics	BaseClear BV, Leiden Dr. Peter Racz ZF-screens BV, Leiden Dr. Peter Racz ZF-screens BV, Leiden Speaker Dr. Christiaan Henkel Leiden University Dr. Hans Komen
12.30 - 13.30 h 13.30 - 14.30 h 14.30 - 17.00 h Timeslot 8.45 - 9.00 h 9.00 - 10.00 h 10.00 - 11.00 h 11.00 - 11.30 h	(lecture) Genomics tools (lecture) Hands-on practice Topic Genomics tools (lecture) Genomics tools (lecture) Genomics tools (lecture)	Visualization of genomics results lunch break Advanced analysis of eel fin clip RNAseq data publishing RNAseq results: Venn diagrams, heat maps, pathway analysis Friday 30 October 2015 Description arrival with coffee/tea Genome evolution Selective fish breeding <u>coffee/tea break</u> Creating superscaffolds using Irys systems from Bionan Genomics lunch break	BaseClear BV, Leiden Dr. Peter Racz ZF-screens BV, Leiden Dr. Peter Racz ZF-screens BV, Leiden Speaker Dr. Christiaan Henkel Leiden University Dr. Hans Komen Wageningen University Dr. Gabino Sanchez Perez Wageningen University
12.30 - 13.30 h 13.30 - 14.30 h 14.30 - 17.00 h Timeslot 8.45 - 9.00 h 9.00 - 10.00 h 10.00 - 11.00 h 11.00 - 11.30 h 11.30 - 12.30 h	(lecture) Genomics tools (lecture) Hands-on practice Topic Genomics tools (lecture) Genomics tools (lecture) Genomics tools (lecture) Transcriptomics	Visualization of genomics results lunch break Advanced analysis of eel fin clip RNAseq data publishing RNAseq results: Venn diagrams, heat maps, pathway analysis Friday 30 October 2015 Description arrival with coffee/tea Genome evolution Selective fish breeding coffee/tea break Creating superscaffolds using Irys systems from Bionano Genomics lunch break Applications of RNAseq in aquaculture	BaseClear BV, Leiden Dr. Peter Racz ZF-screens BV, Leiden Dr. Peter Racz ZF-screens BV, Leiden Dr. Christiaan Henkel Leiden University Dr. Hans Komen Wageningen University Dr. Gabino Sanchez Perez Wageningen University Dr. Arjan Palstra
12.30 - 13.30 h 13.30 - 14.30 h 14.30 - 17.00 h Timeslot 8.45 - 9.00 h 9.00 - 10.00 h 10.00 - 11.00 h 11.00 - 11.30 h 11.30 - 12.30 h 12.30 - 13.30 h	(lecture) Genomics tools (lecture) Hands-on practice Topic Genomics tools (lecture) Genomics tools (lecture) Genomics tools (lecture)	Visualization of genomics results lunch break Advanced analysis of eel fin clip RNAseq data publishing RNAseq results: Venn diagrams, heat maps, pathway analysis Friday 30 October 2015 Description arrival with coffee/tea Genome evolution Selective fish breeding coffee/tea break Creating superscaffolds using Irys systems from Bionano Genomics lunch break Applications of RNAseq in aquaculture research Submitting RNAseq data to GEO/SRA	BaseClear BV, Leiden Dr. Peter Racz ZF-screens BV, Leiden Dr. Peter Racz ZF-screens BV, Leiden Speaker Di, Christiaan Henkel Leiden University Dr. Hans Komen Wageningen University Dr. Gabino Sanchez Perez Wageningen University Dr. Arjan Palstra IMARES, Yerseke Dr. Ron Dirks
2.30 - 13.30 h 3.30 - 14.30 h 4.30 - 17.00 h imeslot .45 - 9.00 h .00 - 10.00 h 0.00 - 11.00 h 1.00 - 11.30 h 1.30 - 12.30 h 2.30 - 13.30 h 3.30 - 14.30 h	(lecture) Genomics tools (lecture) Hands-on practice Topic Genomics tools (lecture) Genomics tools (lecture) Genomics tools (lecture) Transcriptomics (lecture)	Visualization of genomics results lunch break Advanced analysis of eel fin clip RNAseq data publishing RNAseq results: Venn diagrams, heat maps, pathway analysis Friday 30 October 2015 Description arrival with coffee/tea Genome evolution Selective fish breeding coffee/tea break Creating superscaffolds using Irys systems from Bionano Genomics lunch break Applications of RNAseq in aquaculture research	BaseClear BV, Leiden Dr. Peter Racz ZF-screens BV, Leiden Dr. Peter Racz ZF-screens BV, Leiden Dr. Peter Racz Dr. Christiaan Henkel Leiden University Dr. Hans Komen Wageningen University Dr. Gabino Sanchez Perez Wageningen University Dr. Arjan Palstra IMARES, Yerseke

**Registration:** The deadline for registration is: 1 October 2015. Please register via e-mail: <u>workshop2015@zfscreens.com</u>

#### The organizers:

- Ron Dirks (ZF-screens BV / Leiden University, Leiden, The Netherlands; dirks@zfscreens.com)
- Hans Jansen (ZF-screens BV, Leiden, The Netherlands; jansen@zfscreens.com)



### www.impress-itn.eu

