

Project Capella

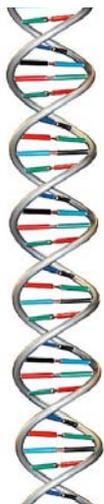


Work is continuing on the site of the new SCI building which is on track for completion in 2018. The basement slab is now complete and preliminary works have started for the concrete frame.

The Capella Project will be a joint School of Clinical Medicine/School of Biological Sciences research facility housing the SCI, The Cambridge Institute of Therapeutic Immunology and Infectious Diseases (CITIID), The KKLf Centre for Leukaemia and Haematopoiesis and The Milner Therapeutics Institute.

You can keep an eye on progress at the site via the webcam at www.time-lapse-systems.co.uk (Username: cambridge, Password: woolsthorpe59)

Policy development on gene editing



On 29th January 2016, two of the university's strategic research initiatives, on Stem Cells and Public Policy convened a workshop entitled 'Stem Cells and Society: Planning for the Future of Gene Editing'.

It was an opportunity to catalyse Cambridge's response to the opportunities offered by stem cell research, and to engage with relevant stakeholders to consider hopes and fears surrounding gene editing.

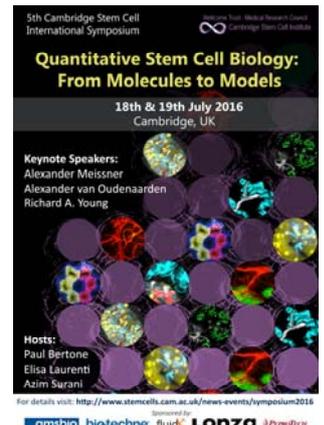
The discussions led towards development of a **set of guiding principles for policy development on gene editing** which are available online at www.publicpolicy.cam.ac.uk/research-impact/stem-cells-report

5th SCI International Symposium

Monday 18th and Tuesday 19th July 2016

This year's Symposium aims to provide an interactive forum for stem cell biologists, clinicians and bioinformaticians to discuss quantitative methods to study the unique biology of stem cells. The topics are centred on how genomic, epigenetic, imaging and modelling approaches have provided insights into the regulation of embryonic and adult stem cells.

www.stemcells.cam.ac.uk/news-events/symposium2016



New Director

On the 1st of April we welcomed our new Director, Professor Tony Green.



Professor Green is based in the Cambridge Institute for Medical Research on the Cambridge Biomedical Campus. His lab focuses on the mechanisms whereby normal blood stem cells are subverted during the genesis of haematological malignancies. Their studies have spanned basic, translational and clinical research, have illuminated the pathogenesis of myeloid malignancies and have generated discoveries of broad biological relevance.

Speaking about his appointment, Professor Green said:

"Austin has done a superb job of establishing SCI as a world class centre for stem cell research and it is a privilege to receive the baton from such an outstanding predecessor. The stem cell community in Cambridge is uniquely strong and with a fantastic new building on the horizon, there are exciting times ahead of us all!"

www.stemcells.cam.ac.uk

New Principal Investigators and Affiliates

We welcome new Principal Investigators: **Maria Alcolea, Joo-Hyeon Lee, Ana Cvejic, Cedric Ghevaert, Daniel Hodson, David Kent, Andrew McCaskie, Anna Philpott, Ingo Ringshausen, David Rowitch, Sanjay Sinha and George Vassiliou.**

And new Affiliate Investigators: **Serena Best, Simon Buczacki, Ruth Cameron, Peter Campbell, Sara-Jane Dunn, Jasmin Fisher, Kristian Franze, Richard Gilbertson, Florian Merkle, Christina Pina and Matthias Zilbauer.**

Moving forward into the next quinquennium the Institute is made up of 29 PI s and 28 affiliates.



SCI International Scientific Advisory Board and Principal Investigators at the ISAB meeting in December 2015

Post Doc Symposium



10th June 2016, 1—7pm

The SCI Research Associate Committee are organising the **2nd SCI Post-Doc Symposium** at the University Centre, Mill Lane.

All Postdocs are invited to register by 9th June at <http://bit.ly/1TDtI9E>

Stem Cell Club

A monthly series of seminars by members of the Cambridge stem cell community, featuring three invited speakers and followed by refreshments .

Upcoming dates include:

- **15th June**, Speakers: Edouard Hannezo, Amy Li and Ferdinand von Meyenn
- **27th July**
- **7th September**

The recent survey on Stem Cell Club had a brilliant response and we will be looking to implement some changes to the format of these meetings from January 2017.

Thank you to Austin Smith



Professor Austin Smith was the founding Director of the Institute in 2006, bringing together talented investigators from across the School of Biological Sciences and the School of Clinical Medicine. Recently, Austin elected to step back from this role in order to concentrate on his own highly productive scientific programme and Tony Green has taken on the mantle of Director.

We thank Austin for all of his hard work over the past 10 years.

Physics of Living Matter Symposium

22nd—23rd September 2016

Promoting the interface between life and physical sciences in Cambridge and organised by SCI group leaders Kevin Chalut , Alfonso Martinez-Arias and Kristian Franze.

Register by 8th September

www.plm-symposium.org



Publications

The SCI continues with it's excellent publication rate. All the latest publication news can be found on our website. Some highlights from 2016 so far include:

Schütte J et al. **An experimentally validated network of nine haematopoietic transcription factors reveals mechanisms of cell state stability.** *Elife*. PMID: PMC4798972 (Feb 2016)

Guo G et al. **Naïve pluripotent stem cells derived directly from isolated cells of the human inner cell mass.** *Stem Cell Reports*. PMID: PMC4834040 (Mar 2016)

Moreau T et al. **Large scale production of megakaryocytes from human pluripotent stem cells by chemically defined forward programming.** *Nature Communications*. PMID: PMC4829662 (Apr 2016)

Achievements



Professor Austin Smith

awarded the McEwen Award for Innovation (jointly awarded with Dr Qi-Long)



Professor Robin Franklin

elected to fellowship of the Academy of Medical Sciences



Dr Thora Karadottir

awarded the Lister Institute Research Prize Fellowship



Public Engagement

Events

Cambridge Science Festival



The Cambridge Science Festival is a real highlight in our engagement calendar - an opportunity to meet hundreds of local families; to show them the amazing work that we do and to discuss what it might mean for them. We always try to offer new and interesting content and this year was no exception! Here is a brief snapshot of the events we took part in:

We took our new activity, 'How to Make a Human', to the weekend family events at the Guildhall and Biomedical Campus. This is a unique stem cell tutorial using small, programmable robots. The concept was developed by **Elisa Laurenti** and robotics experts at EPFL in Switzerland. Thank you to all SCI members who did such a great job of managing large crowds of participants and spectators!

A key group that tends to be overlooked at the festival is young adults. We invited sixth-form students to attend a PhD experience at Tennis Court Road - this went beyond our usual lab tours and aimed to give attendees a real glimpse of what life is like as a scientist in further education. **Alise Molotova**, **Stanley Strawbridge** and **Julia Spindel** were an inspiring trio!

This year, we shook-up the format of our evening talks by partnering with 3 other Cambridge research institutes to offer expert panels on hot topics. Audience members were able to submit questions in advance and gave the panellists a real grilling.

Ludovic Vallier and **Peter Rugg-Gunn** took on the high-profile topic of 'The Future of Genome Editing'. **Paul Bertone** and **Maria Alcolea** didn't shy away from the tricky questions at 'Stem Cells, Big Data and Personalised Medicine'.



What Am I Made Of?



'What Am I Made Of?' is an experimental project created in collaboration with Chesterton Primary School as part of the Royal Society Partnership programme. The aim is to see the potential benefits of very early engagement with biology.

Throughout the spring semester we have been working closely with Year 1 (aged 5 & 6) to help them lead an investigation into the human body. The class were particularly excited about a trip to the lab in January and we really enjoyed visiting them in their own classroom in March.

This stage of the project was brought to a close in May with the school's very first science fair. The fair was an opportunity for the children to show their parents and the neighbouring primary school what they have been discovering .

Thank you to the whole team: **David Kent**, **Christine Watson**, **Emily Calderbank**, **Christina Pina**, **Loriana Vitillo**, **Mairi Shepherd**, **Jessie Hitchcock**, **Olivia Harris**, **Ana Amaral**, **Afnan Mohammed**, **Roberta Azzerelli** and **Sebastien Gillotin**

" What I love about this project is that it is with 5 year old kids - they're amazingly intelligent and amazingly interested in learning. It's great fun and hopefully we're inspiring them to enjoy science!"

Professor Christine Watson



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THE ROYAL SOCIETY

Coming Up

Stem Cell Pop - Up



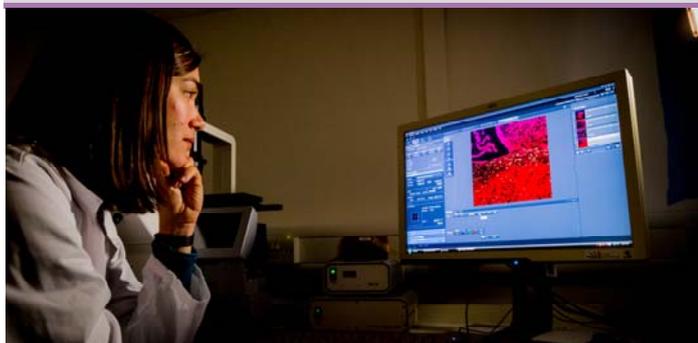
Tuesday 7th June, Food Court, Addenbrooke's Hospital

Part of our public engagement mission is to bring stem cell research to new audiences and to find out what they think. To this end, we have been developing an interactive 'pop-up' exhibit that can be taken to different locations. The exhibit includes introductory information, games and artwork but the key objective is to give members of the public the opportunity to ask questions and start a conversation with CSCI researchers.

Our pilot pop-up will take place in the central concourse at Addenbrooke's Hospital. If you are curious to see what the public really think about stem cells, challenge yourself to an hour on the stand.

Contact Philippa: scipeo@stemcells.cam.ac.uk

The Big Screen



With the help of members of the public, we have finished a series of short films about the progress we are making in key translational research areas.

The films will be launched on YouTube and with several charity partners on the 8th of June. Thank you to everybody who has been involved in their production, in particular **Brain Huntly, David Rowitch** and **Roger Barker**.

Gamify Your Research



Weekend of 25th & 26th June, 3rd Floor Tennis Court Road

This summer, the MRC is hosting a celebratory festival with public events up and down the country. As part of the festival, we are hosting our second 'game jam' - bigger and better! We will be inviting games developers for a crash course in stem cell biology before challenging them to turn specific research into a playable computer game.

If you are interested in the unique opportunity to partner with a development team and 'gamify' your own research please contact Philippa: scipeo@stemcells.cam.ac.uk

Cellbound



Cellbound is a custom built, touch-screen game all about the difficulties of directing stem cell differentiation. Players are challenged to make a fully functioning neuron from a pluripotent cell by directing it through a series of mazes. The game has been developed in collaboration with the winning team from our 2015 Game Lab and will be road-tested in the next few weeks.

Thanks to **Stanley Strawbridge, Tuzer Kalkan, Masaki Kinoshita** and **Nicholas Blair** for their input.

Laurenti Nomination Public Engagement Award

We are pleased to announce that the Laurenti lab has been nominated for the Cambridge University **Public Engagement with Research Award**. The nomination was made by Philippa Russell and confirmed by Tony Green and David Kent in recognition of the Laurenti group's shared commitment to sharing stem cell research in innovative ways. In particular, we commended the support and encouragement that Elisa Laurenti has provided to all new lab members. Winners will be announced at a ceremony on the 20th of June. Best of Luck!