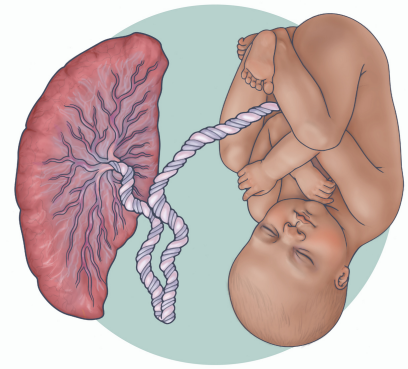


iPlacenta Newsletter

Innovation in Modelling
Placenta for Maternal
and Fetal Health



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Editorial

Taking stock of the iPLACENTA Symposium, 6 May 2021

It is now three weeks since the iPLACENTA online symposium "Novel Perspectives in Maternal and Fetal Health" took place, realised in collaboration with the Australian and New Zealand Placental Research Association (ANZPRA) and achieving a truly intercontinental speaker panel and audience. We registered 153 delegates from 25 countries with access to the early-career researcher's posters (24 posters), and 76 actual attendees at the event, which saw six key speakers and six early-career researchers give talks in two sections, "Next generation models and diagnostics of Preeclampsia and Intra-Uterine Growth Restriction" and "Adverse pregnancies, a stress test for further maternal complications". Judging by the feedback, the speakers and participants really enjoyed the meeting and were impressed by the quality of the work presented, which we hope opens up new avenues for exchange and collaboration and has been a fruitful opportunity for the early-career researchers to extend their networks.

From a training perspective, we also wanted the iPLACENTA early-stage researchers (ESRs) to be involved in organising the conference and to be able to enhance their skills and CVs. We asked them all to volunteer for one of three areas (1: planning, 2: abstract review and organisation, 3: chairing posters sessions, talks or the discussion panel), and distributed roles accordingly. As the project manager, Mirren led on communications with the invited speakers and early-career researchers who had submitted abstracts, and built the delegate webpages that included abstracts, posters and biographies as well as a commenting app - which disappointingly nobody chose to use! Using Microsoft Teams Live Events as a platform for the event itself was a technical and logistical challenge. But having managed to pull it off successfully makes us confident - and hopefully the ESRs too - of organising a similar kind of event again.

Recent publications For a full list, see: www.iplacenta.eu/publications

Ruano CSM, Apicella C, et al. Alternative splicing in normal and pathological human placentas is correlated to genetic variants

Vaiman/Méhats, Institut Cochin (U1016 INSERM) | *Hum Genet* 140, 2021 | <https://doi.org/10.1007/s00439-020-02248-x>

Apicella C, Ruano CSM, et al. Urothelial Cancer Associated 1 (UCA1) and miR-193 Are Two Non-coding RNAs Involved in Trophoblast Fusion and Placental Diseases

Vaiman/Méhats, Institut Cochin (U1016 INSERM) | *Front Cell Dev Biol* 9, 2021 | <https://doi.org/10.3389/fcell.2021.633937>

Editors:
Dr Colin Murdoch | project coordinator
Mirren Augustin | project manager
School of Medicine
University of Dundee
iplacenta@dundee.ac.uk



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This project has received funding from the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement no. 765274

Training

We have continued to offer the ESRs' training programme in virtual formats in the past six months, and managed, in spite of the circumstances, to cover a wide range of research and transferrable skills. Benedetta Bussolati (University of Turin) spoke on the potential of **extracellular vesicles** to develop forms of diagnostics or therapeutic treatments, while the new iPLACENTA partners Dr Raphaël Margueron and Aurélien Boré provided an introduction to the **genome-wide screening** services provided and research performed by CRISPRit at Institut Curie (*bottom right, chair: Clara Apicella*).

A particular acknowledgement goes to ESRs Julia Scheel and Jana-Ch. Hegenbarth for offering **training in R** to their appreciative peers. Further key skills were covered by Olaf Wolkenhauer (University of Rostock), who provided a new year's motivational boost in the form of a seminar on **productivity, project and time management** for scientists (*top right*). Alicia Evangelista, Head of Innovation at swissnex Boston, and Arianna Colosio, Senior Editor at EclinicalMedicine were invited by Colin Murdoch (University of Dundee) for a session of **"career talks"** and to give their insights into post-doctoral trajectories (*middle right*).

The Mimetas virtual day in March was designed to deliver an **industry perspective on biomedical research** and to equip the iPLACENTA ESRs to recognise IP in their current and future work. Entrepreneurship will also be the focus of the virtual, bespoke **Enterprising Skills Training Programme** offered by the University of Dundee's Centre for Entrepreneurship. Across 6 weeks, the ESRs will work in teams on a set of theoretical briefs in different medical areas and pitch their innovative solutions to the public and a panel of judges on 29 June.

Secondments

Because of the impossibility of foreign travel and institutions' reluctance to host visiting scientists at this time, almost all secondments of ESRs to other institutions had to be cancelled this year, resulting in them having to find new, long-distance ways to collaborate. However, the work of ESR 6 Clara Apicella, based at Institut Cochin (INSERM) in Paris, allowed her to look elsewhere for a "secondment experience", without the stresses of having to move to another city or country at this time:

Last November I started my secondment in the laboratory of Dr. Raphaël Margueron, at the Institut Curie, as part of our collaboration with the CRISPRit platform, including Dr. Margueron as well as Dr. Michel Wassef and Aurélien Boré. The platform has given me guidance on the genetic screen I am planning to perform on trophoblast cells, to study the physiological phenomenon of trophoblast fusion that occurs during placental development. Being hosted by Dr. Margueron and his team, working in the laboratory directly under Aurélien's wing has been an extremely enriching experience. I had the chance to learn new methods such as working with lentiviral libraries, using large-scale cell culture techniques, familiarise myself with complex experimental designs as the ones needed for a whole-genome screen, while benefitting from the platform's expertise on such an impactful technology as CRISPR/Cas9. Our collaboration is still ongoing, and I am happy to have had this chance to share the same passion for science and discovery, expanding my professional network as well as making new friendships.

NETWORK TRAINING ACTIVITIES



iPLACENTA Career talks



April 15th 2021, 16:00 CEST, 15:00 BST



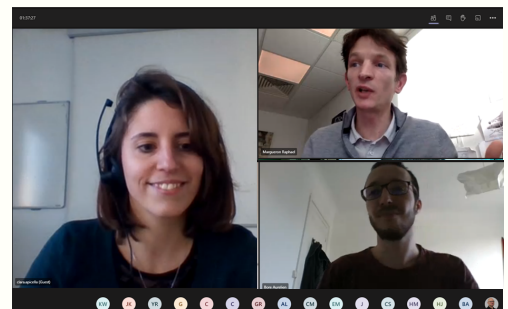
Dr Alicia Evangelista

As Head of Innovation at swissnex Boston, Alicia works to connect Switzerland's startups, innovation-driven companies, and foundations with game-changing partners and ideas in the US through science diplomacy. Prior to joining swissnex, Alicia worked in the field of technology transfer at the National Institutes of Health, and as an open innovation consultant at y2i2 in the Boston area. Alicia holds a PhD in Molecular Medicine from Boston University, and a BS in Biomedical Engineering from the University of Virginia.



Dr Arianna Colosio

Arianna is a Senior Editor of EclinicalMedicine. She joined EclinicalMedicine in spring 2019 and she has been working as a professional editor since 2018, when she joined Genome Medicine, one of the BMC Flagship journals at Springer Nature. She received a PhD in Human Genetics and Molecular Oncology from the European School of Molecular Medicine at the FIRC Institute of Molecular Oncology in Milan, Italy, working on the molecular basis of cancer. She continued her studies on genome integrity as a postdoctoral scientist at the Italian National Research Council in Pisa, Italy, and then at Imperial College London, UK. She holds a MSc in Molecular Biology and a BSc in Biological Sciences, both from the University of Milan, Italy.



OTHER NEWS

Conferences

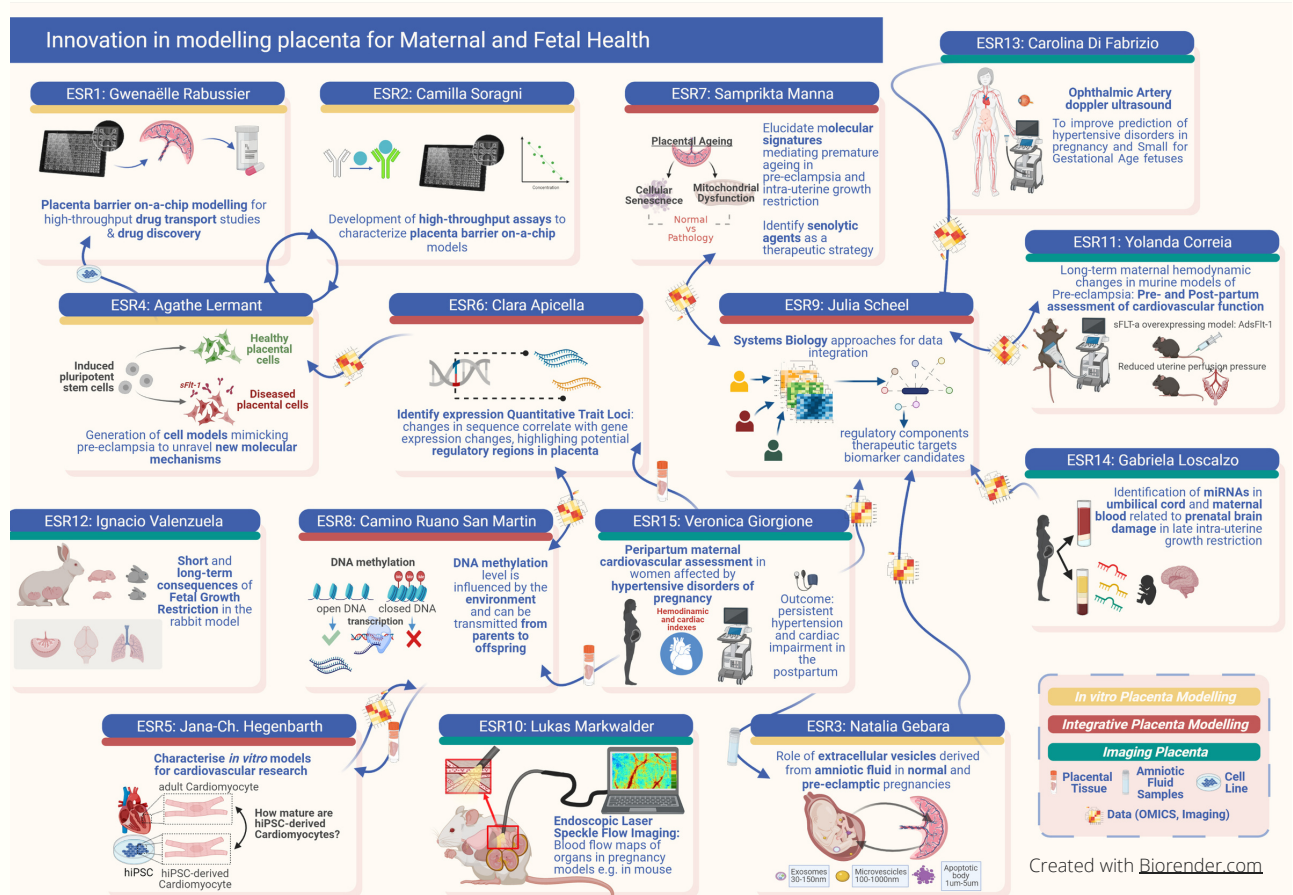
The early-stage researchers will be presenting their work in a dedicated session on innovation in placenta modelling at the International Federation of Placental Associations (IFPA) 2021 annual conference, which takes place virtually this year: www.ifpa2021.amc-registration.nl (30/08-02/09/2021).

Blog

Check out our blog at www.iplacenta.eu/blog, for which the early-stage researchers have recently written accessible and engaging articles on these subjects: Doppler ultrasound and maternal-fetal circulation, alternative splicing, epigenetics, 3D cell culture, logic, public awareness of preeclampsia, and drug development. Interested in personal experiences? "Let's have a break..."

iPlacenta collaborations

How do you sum up your project in a comprehensive diagram? How does your work interconnect? The early-stage researchers have done their best to show how iPLACENTA hangs together. Thanks to Clara Apicella for the idea, design and collation into a bigger picture.



Contact / follow us:

Dr Colin Murdoch | project coordinator: c.z.murdoch@dundee.ac.uk
Mirren Augustin | project manager: iplacenta@dundee.ac.uk



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