The Alan Turing Institute

Roche

Turing-Roche Predictive Modelling Funding Call: Information and Q&A session

Turing-Roche Strategic Partnership team

16th September 2022

Agenda

- **11.30am-11.40am:** Background to the Turing-Roche Partnership and research themes
- **11.40am-11.55am:** Roche work in this area- use cases
- **11.55am-12.05pm:** Funding call background, what we're looking for, collaborative workshop opportunities
- **12.05pm-12.30pm:** Audience Q&A
- **12.30pm-12.45pm:** Spillover for any urgent questions

Turing-Roche Partnership team

Chris Harbron Expert Statistical Scientist and Advanced Analytics Lead

Vicky Hellon
Community Manager

Chris Holmes
Programme Director for Health and Medical Sciences Programme
T-R partnership lead

Ryan Copping
Global Head of Data Science Acceleration
T-R partnership lead

Ben MacArthur
Deputy Programme Director for Health and Medical Sciences Programme

Sarah McGough
Senior Data Scientist, Real-World Data

Rohan Chakraborty
Senior Postdoctoral Research Associate

Álvaro Sahun
Project Manager

Jay Dougherty
Alliance Director

Katrina Payne
Partnerships Development Lead, Alliance Director for T-R partnership

Michelle O'Gorman
Project Manager

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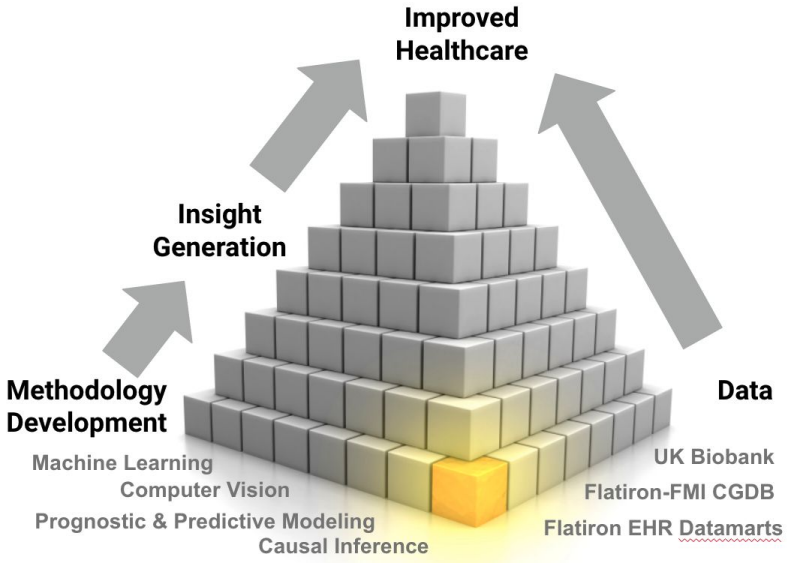
Background to Turing-Roche Strategic Partnership

- Launched in June 2021- Roche is Turing's first pharmaceutical strategic partner
- 5-year collaboration guided by our North Star:

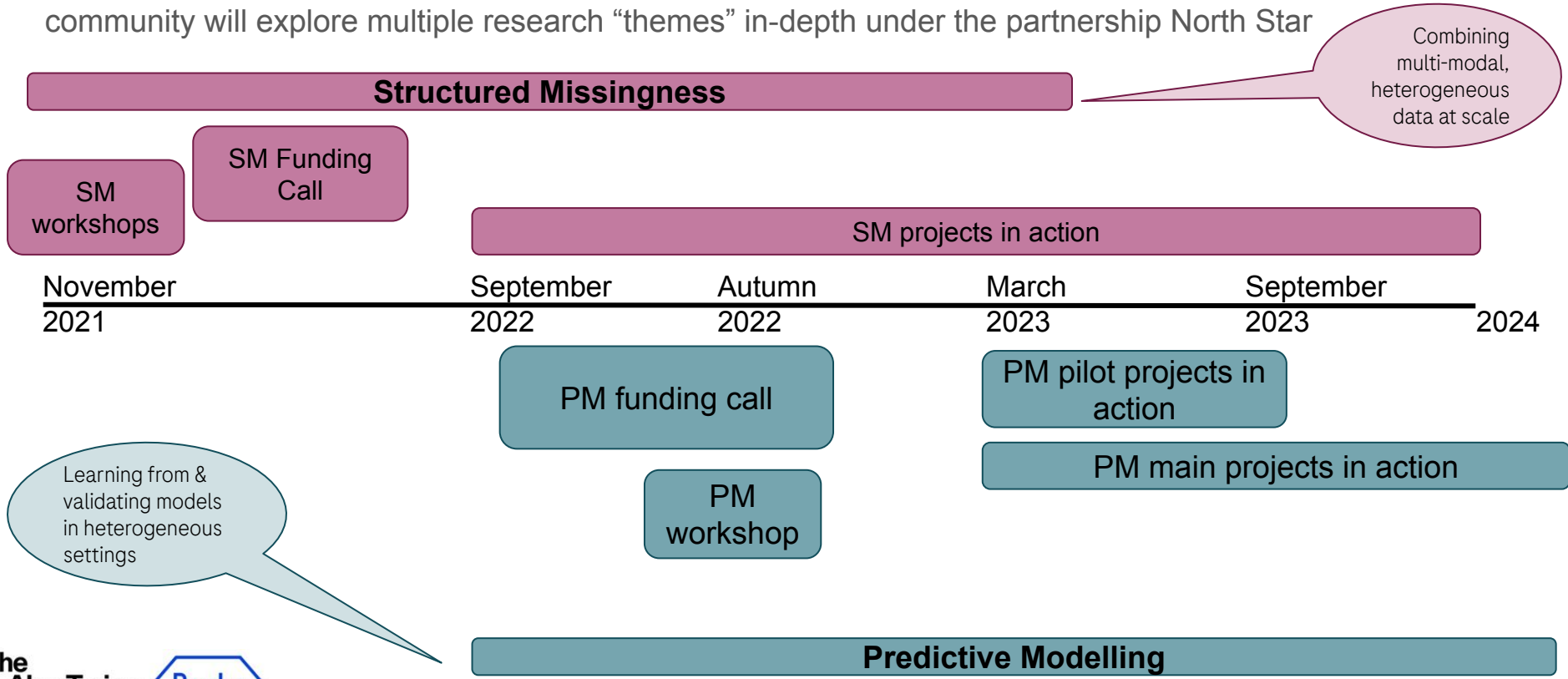
"To enable the generation of insights to better understand patient and disease heterogeneity and its relevance to clinical outcomes at an unprecedented level of precision in order to improve clinical care"



https://www.turing.ac.uk/research/research-projects/alan-turing-institute-roche-strategic-partnership

Partnership themes

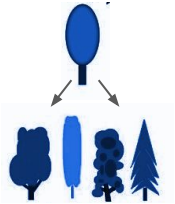
Over the 5-year partnership, researchers from Roche, the Turing network and wider scientific community will explore multiple research “themes” in-depth under the partnership North Star



Predictive Modelling in the Context of Uncertainty and Heterogeneity in Biomedical Data

Why This Theme & Sub-Themes?

- Central to our North Star of Understanding Patient and Disease Heterogeneity
- Prediction is a frequent application and desired outcome
- Health data is heterogeneous and noisy
- Enormous area, so sub-themes chosen to provide areas of focus to collaborate around



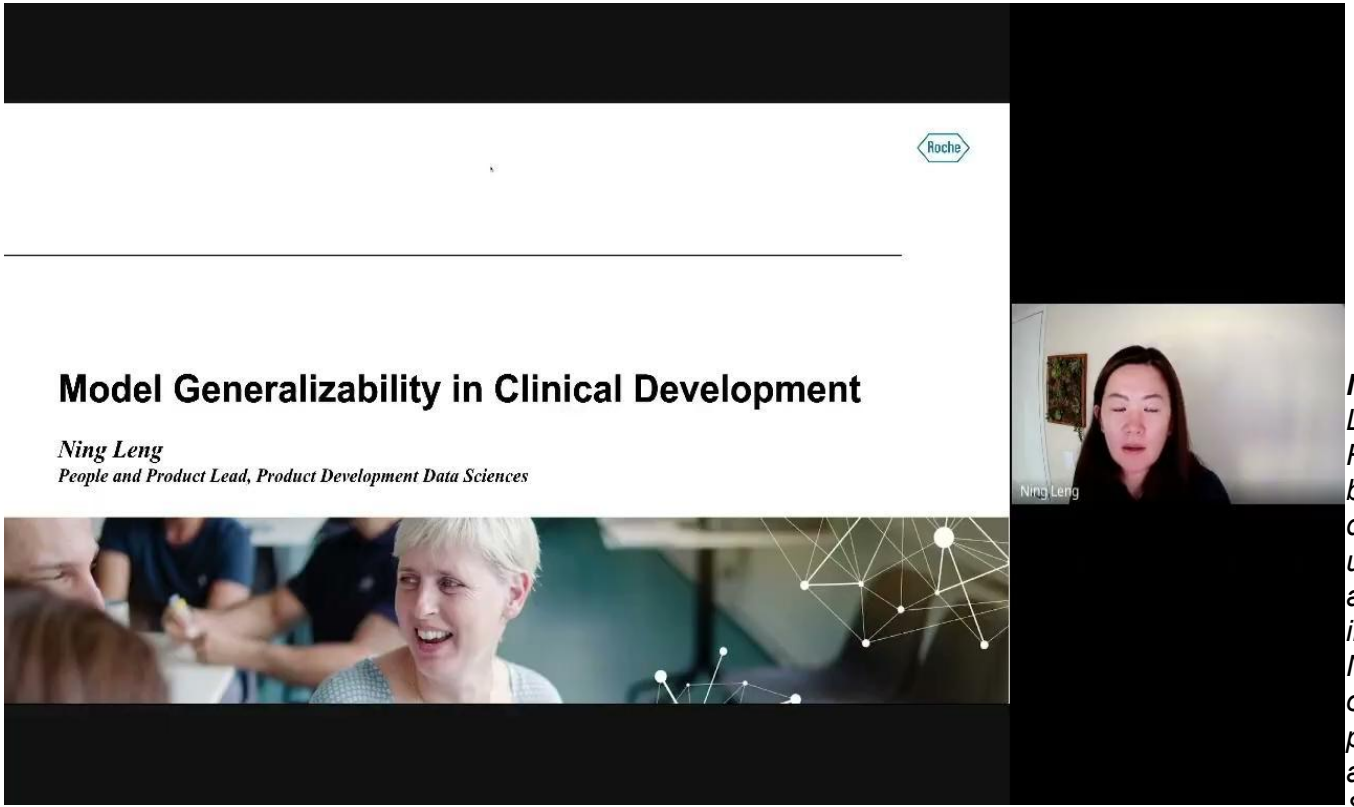
Generalisation despite data heterogeneity
We need to develop predictive models that can be widely deployed across multiple scenarios including different populations, different data sources and time

Prediction uncertainty in personalised healthcare
We need to be able to robustly understand the uncertainty associated with any predictions to provide the confidence for them to be useful

Algorithmic explainability and fairness for AI in healthcare
We need to ensure that any predictions are free from intended or unintended bias and can be interpreted to build trust in them

Roche Case Studies

#1: Generalisation despite heterogeneity

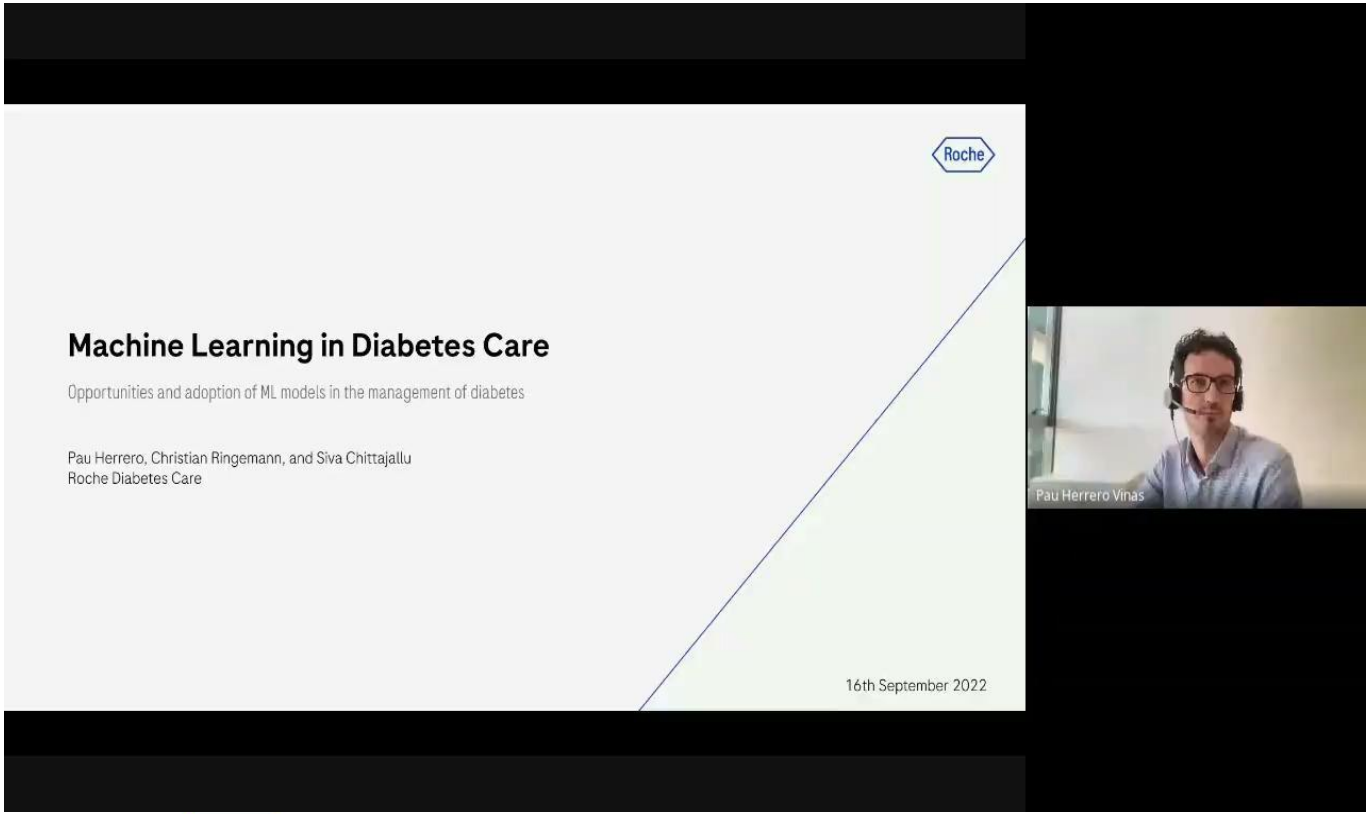


Ning Leng
Roche Data Science
Acceleration Lead

Ning Leng *is a People and Product Lead in Data Sciences at Roche-Genentech. Ning has worked on both early and late phase oncology development, with a special interest in utilizing diverse data sources and advanced methodologies to generate insights for personalized healthcare. Ning is also an advocate of automation, open sourcing and open collaboration in pharma and holds a B.S. in Information and Computing Science and a Ph.D. in Statistics.*

Roche Case Studies

#2: Personalised healthcare



Pau Herrero Viñas
Tech Lead, Algorithms & Decision Support,
Roche Diabetes Care

***Pau Herrero** holds a PhD degree in Information Technologies and has spent the last 15 years,11 of them at Imperial College London (UK), developing and clinically validating software tools for the management of diabetes. He currently holds the position of Algorithm and Decision Support Tech Lead at Roche Diabetes Care.*

Roche Case Studies

#3: Algorithmic explainability and fairness for AI in healthcare

Melanie Poulin-Costello
Roche Data & Statistical Science Lead

Melanie is a statistician with many years of experience in drug development. She is a Data & Statistical Science Lead at Roche focusing on oncology, specifically melanoma, rare diseases and tumour-agnostic treatments. She is also passionate about the science of statistics and promoting learning and statistical literacy, and is serving on a cross-functional working group centered around European Regulatory Policy and the EU AI Act.

PM Funding Call Key Points

- Funding call open from 5th September-14th November 2022
- Proposals need to specify one or more of the sub-themes
- We are funding:
  - Main projects (approx 12-18 months)- designed for multi-party proposals with collaboration between senior academics
  - Pilot projects (approx 6 months)- designed for early career researchers seeking first leadership experience- pursuing proof-of-concept research
  - Expecting to fund 2 main projects at £300,000 each and 2 pilot projects at £75,000 each (including 100% overheads) but will depend on applications.
  - 50% of the overheads will be payable to the university and 50% of which will be retained by Turing. Please, be aware when proposing costs that funding limits include 100% overheads.
- Anyone based at a university or research institute can apply for the funding. Commercial organisations are not eligible
- Collaboration is key (Collaborative Workshop and Co-working Sessions).

a.sahun@turing.ac.uk

PM Funding Call Key Points

- Successful applicants and their teams will be engaged **via a secondment agreement** to Turing**.** So university will periodically invoice Turing for the agreed secondment/FTE to pay 100% of salary and on-costs.
- Although secondment terms and conditions may depend on the nature of the project, general terms of secondment will be as per the Turing template secondment agreement (available in the application portal).
- University has to agree with secondment terms and conditions and FTE (employee must be able to commit for the proposed FTE).
- University has to agree with proposed costs, which will be presented using our costing template (available in the application portal).
- Foreground IP developed through the project will be jointly owned by Turing and Roche and published on an open-source basis under a creative commons licence.

a.sahun@turing.ac.uk

What we're looking for

Reviewing panel will be chaired by Chris Holmes and made up of senior members of Turing and Roche partnership team

- Scientific Novelty and Timeliness
- Feasibility
- Contributing to the partnership's North Star of understanding patient and disease heterogeneity
- Utilising the partnership and collaborative approach
- Value for money

Collaborative Workshop and Co-working Sessions

- Ran last year for the structured missingness theme
- Will be running an in-person workshop at the Turing on the 11th October
- Hosting 35 people- short application process via Flexigrant
- Lunch and refreshments provided but travel not included (small limited budget if needed)
- Virtual co-working sessions on the 20th and 28th October
- All optional- not needed to apply to the call

Key dates

- Call open till 14th November
- Workshop:
  - Applications open till 26th September
  - Successful applicants notified 27th September
  - Workshop takes place 11th October
  - Virtual co-working sessions 20th and 28th October
- Final decisions communicated by 23rd December
- Offer acceptance deadline- 1st February 2023
- Projects start by 1st March 2023
- Projects to complete and report by August 2023 (Pilot) and August 2024 (Main)

Q&A Session

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Next steps

https://www.turing.ac.uk/work-turing/open-call-predictive-modelling-projects-context-uncertainty-and-heterogeneity

- Apply to attend the workshop (Flexigrant)- closes 26th September and register for virtual co-working sessions (Zoom)
- Apply now to the funding call via Flexigrant- open till 14th November
- Any further queries can be sent to the Health Programme inbox: healthprogramme@turing.ac.uk Responses in 3 working days
- In the meantime you can find out more about the partnership via our webpage:

  https://www.turing.ac.uk/research/research-projects/alan-turing-institute-roche-strategic-partnership