



ECRIN and the role of the European Research Infrastructures in Personalised Medicine

Paula Garcia – project manager
ICPerMed Conference



European Clinical Research Infrastructure Network

- Created in 2004 → 2006 ESFRI Roadmap
- ERIC since 2013
- ECRIN's vision is to generate scientific evidence to optimise medical practice. To achieve this vision, ECRIN supports the conduct of multinational clinical research in Europe. By managing and supporting clinical trials across borders, connecting networks, and advising and implementing policy, ECRIN advances knowledge flow, competitiveness and integration in European clinical research.




ECRIN and personalised medicine

- Clinical studies and trials in PM → ECRIN services
- Developing tools for PM research → Methodological guidelines
- Joint RI services
- Building bridges and consolidating networks for PM research

ECRIN services for clinical studies



Clinical trials in PM

- **NECESSITY** - <https://www.necessity-h2020.eu/>
 - Sjögren's Syndrome – new composite responder index
 - 10 countries
- **ImmunAID** - <https://www.immunaid.eu/>
 - New biomarkers for SAID
 - 35 sites in 11 countries
- **R-Link** - <https://rlink.eu.com/collaborative-research-project/>
 - Stratifying patients with bipolar I disorder – personalizing treatment
 - 8 countries

Clinical trials in PM

- EU-Train - <https://eu-train-project.eu/>
 - Stratifying renal transplant patients according to their risk level
 - 5 countries
- TTV Guide EU - <https://www.ttv-guide.eu/>
 - Improving the management of immunosuppression in renal transplant patients → use of Torque Teno Virus as a biomarker
 - 7 countries

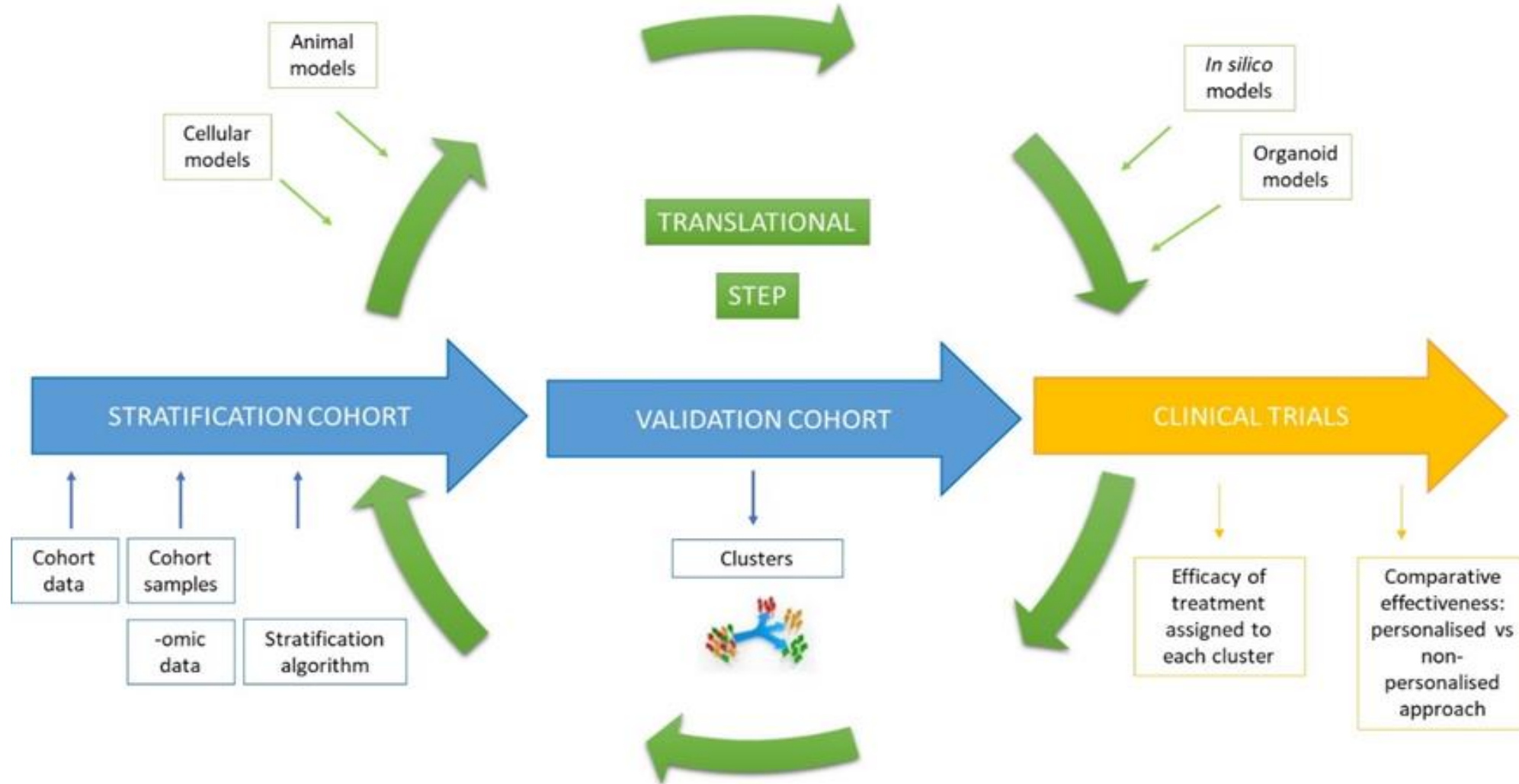


ECRIN strengthening clinical research

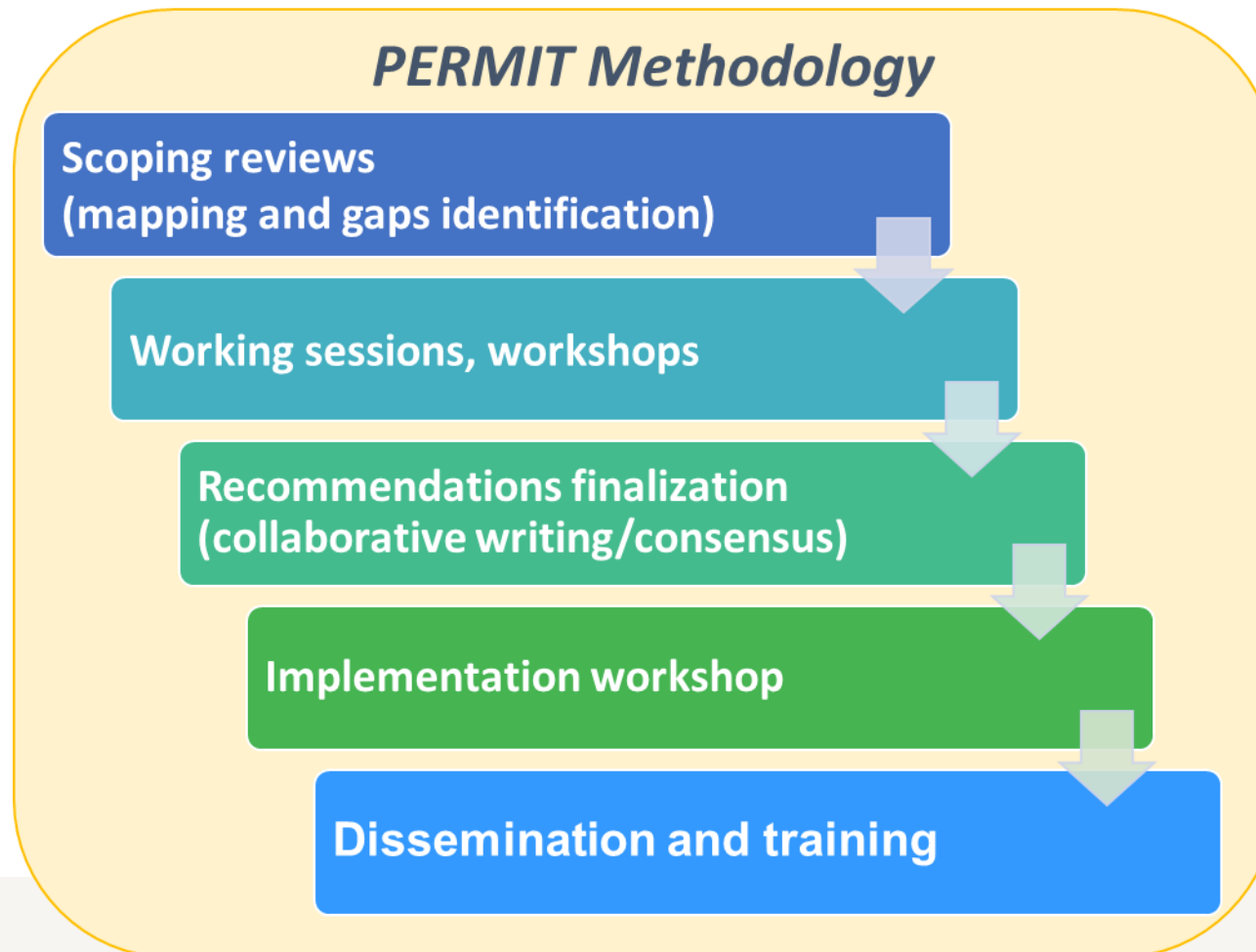
- Create tools that facilitate clinical research
- Advance methodological research
- Contribute to building and strengthening bridges in the research community

PERMIT – PErsonalised medicine Trials

- CSA Horizon 2020 - 2,5 years
- Develop recommendations on research methods for PM
- Disseminate the recommendations and facilitate their implementation
- Involve all stakeholders of the PM research ecosystem: researchers and RIs, funders, patient associations, scientific journals, HTAs, regulatory bodies (national and European), ethics committees, industry



PERMIT – PErsonalised medicine Trials



Output

- 70+ recommendations divided in 4 stages
- 5 open access papers published + 1 under review
- 4 papers being drafted
- 3 lay terms summaries + podcast episode
- 3 training series



www.permit-eu.org

Review

Methods for Stratification and Validation Cohorts: A Scoping Review

Teresa Torres Moral ^{1,2,3}, Albert Sanchez-Niubo ^{1,4,5,*}, Anna Monistrol-Mula ¹, Chiara Gerardi ⁶, Rita Banzi ⁶, Paula Garcia ⁷, Jacques Demotes-Mainard ⁷, Josep Maria Haro ^{1,4} and the PERMIT Group

Open access

Original research

BMJ Open Biomarker discovery studies for patient stratification using machine learning analysis of omics data: a scoping review

Enrico Glaab ¹, Armin Rauschenberger ¹, Rita Banzi ², Chiara Gerardi ², Paula Garcia ³, Jacques Demotes ³



Review

Evaluating Translational Methods for Personalized Medicine—A Scoping Review

Vibeke Fosse ^{1,*}, Emanuela Oldoni ², Chiara Gerardi ³, Rita Banzi ³, Maddalena Fratelli ⁴, Florence Bietrix ², Anton Ussi ², Antonio L. Andreu ², Emmet McCormack ^{1,5} and the PERMIT Group †

Open access

Original research

BMJ Open Study designs for clinical trials applied to personalised medicine: a scoping review

Cecilia Superchi ¹, Florie Brion Bouvier ¹, Chiara Gerardi ², Montserrat Carmona ^{3,4}, Lorena San Miguel ⁵, Luis María Sánchez-Gómez ^{3,4}, Iñaki Imaz-Iglesia ^{3,4}, Paula Garcia ⁶, Jacques Demotes ⁶, Rita Banzi ², Raphaël Porcher ¹, the PERMIT Group

PLOS COMPUTATIONAL BIOLOGY

EDUCATION

Ten quick tips for biomarker discovery and validation analyses using machine learning

Ramon Diaz-Uriarte ¹, Elisa Gómez de Lope ², Rosalba Giugno ³, Holger Fröhlich ^{4,5}, Petr V. Nazarov ⁶, Isabel A. Nepomuceno-Chamorro ⁷, Armin Rauschenberger ², Enrico Glaab ^{2*}

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Projects to develop and strengthen networks

- EULAC – PerMed - <https://www.eulac-permed.eu/>
 - 3 Technical Workshops – PM research methods
 - Data collection and management for PM
 - ELSA and PM
 - Clinical trials in PM
 - Webinars
- EU Africa – PerMed - <https://www.euafrica-permed.eu/>
 - Summer Schools – methodological standards for PM research
 - Webinars



Conclusions

- Facilitating conduct of multinational PM trials
- Developing guidelines to ensure excellence, robustness, reproducibility and acceptability of PM studies
- Helping networks to succeed
- Joining forces with other RIs

Thank you!



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