

Dr Diana Hermith-Ramirez

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Senior Clinical Researcher
Griffith Biostatistics Unit - Griffith Health



Industry Fellow - Child Health Research Centre
Visitor Researcher - Mater Research Institute



Dr Diana Hermith-Ramirez is a Senior Researcher in Clinical Research and Data Management at Griffith University's Biostatistics Unit. She specialises in advanced data science methods to clean, process, and analyse complex clinical and longitudinal datasets, ensuring they are structured and optimised for accurate and impactful health research. An expert in designing robust and scalable data workflows, Dr Hermith-Ramirez streamlines data collection, integration, and analysis to derive actionable insights from large-scale health data. She contributes to multiple NHMRC- and MRFF-funded projects, bringing expertise in data processing, curation, and integration across diverse clinical domains. Her work includes the development of data systems, integration of complex datasets, and application of biostatistical methods to support rigorous and reproducible research. These contributions have resulted in impactful publications and publicly available datasets.

Her portfolio spans clinical trials, longitudinal cohorts, and health services research. She is skilled in managing complex datasets, developing efficient data systems, and applying advanced biostatistical methods to generate high-quality research outputs. Her work contributes to improved healthcare delivery, population health, and evidence-based practice. Dr Hermith-Ramirez's approach to data management emphasises technical rigour, adaptability, and capacity building. She provides tailored support to clinicians and researchers, including data cleaning strategies, secure data governance, advanced statistical analysis, and database design using platforms such as REDCap and Qualtrics. Her training and mentorship empower multidisciplinary teams to address data challenges with confidence and efficiency.

Dr Hermith-Ramirez completed a PhD in Computational Biology at Università degli Studi di Siena, where she developed computational models to analyse biochemical systems. This strong foundation in computational methods underpins her career, which includes roles at Queensland Health and in Colombia, where she built a reputation in health informatics and computational biology. Since 2022, she has led data initiatives at Griffith University while collaborating on data-driven health projects with institutions across Australia, including The University of Queensland-Child Health Research Centre (UQ-CHRC), the Mater Research Institute-The University of Queensland (MRI-UQ), and the University of Melbourne.

Education

- 2016 PhD in Engineering and Science of Information (Computational Biology), Università degli Studi di Siena, Italy.
- 2026 Diploma of Clinical Coding, Victoria University, Australia.
- 2023 Graduate Certificate in Biostatistics, The University of Queensland, Australia.
- 2021 Graduate Certificate in Bioinformatics, The University of Queensland, Australia.
- 2011 Master's in Engineering (Computer Science), Pontificia Universidad Javeriana, Colombia.
- 2005 B.Sc. in Molecular Biology, Universidad del Valle, Colombia.

Fields of Expertise

- Development and management of health-focused databases in REDCap and Qualtrics.
- Data cleaning, processing, and integration for health-focused data systems using Python, R.
- Advanced statistical modelling using R, SPSS, and STATA.
- Application of computational biology to health-focused data systems and data science.
- Analysis of large, linked, health-focused datasets.

Experience

Jan 2024-Present **GOLD COAST UNIVERSITY HOSPITAL | GOLD COAST QLD**

Data Manager | Maternal Fetal Medicine Unit (OPTIMA Project)

- Collaborate with maternal-fetal medicine specialists and research coordinators to optimise data collection workflows, resolve data issues and support longitudinal data integrity.
- Design and maintain REDCap databases and data workflows, ensuring governance compliance and clinical usability within a high-acuity hospital environment.
- Lead data management for the OPTIMA Project, a maternal-fetal medicine clinical research study.

Nov 2022-Present **GRIFFITH UNIVERSITY | NATHAN, QLD**

Senior Research Assistant, Data Management | Clinical Research (Griffith Health, Griffith Biostatistics Unit, Dec 2024-Present)

Clinical Research Data Manager (School of Medicine and Dentistry, Griffith Biostatistics Unit, Dec 2023-Dec 2024)

Research Fellow and Data Manager (Griffith Health, Griffith Biostatistics Unit, Nov 2022-Dec 2023)

- Manage research data for various MRFF and NHMRC health-related projects, ensuring the integrity and security of data handling processes.
- Collaborate with researchers to analyse biological and clinical data using computational approaches and biostatistics.
- Develop REDCap surveys for clinical studies and randomised trials, ensuring robust data collection and analysis.
- Maintain the Griffith Biostatistics Unit website.
- Manage the Griffith University Randomisation Service.

Feb 2023-Present **THE UNIVERSITY OF QUEENSLAND | SOUTH BRISBANE, QLD**

Honorary Industry Fellow, Child Health Research Centre, Queensland Cerebral Palsy and Rehabilitation Research Centre.

- Collaborate with researchers by performing data processing and biostatistical analyses.
- Develop REDCap databases for clinical studies and randomised trials, ensuring comprehensive and accurate data collection and analysis.

Feb 2025-Present **THE UNIVERSITY OF QUEENSLAND | SOUTH BRISBANE, QLD**

Visitor researcher, Mater Research Institute, Indigenous Health Research Group.

- Develop REDCap databases for The Strong Families Study, ensuring comprehensive data collection, strict governance compliance, and accurate analysis.

Dec 2022-Dec 2024 **UNIVERSITY OF MELBOURNE | PARKVILLE, VIC**

Honorary (Fellow) (Melbourne Graduate School of Education)

- Collaborate with researchers by performing data processing, data linkage, and biostatistical analyses.
- Develop and manage Qualtrics databases for the Early Language in Victoria Study, ensuring comprehensive, accurate, and clean data collection and analysis.

Jan 2022-Oct 2022 **QUEENSLAND HEALTH | HERSTON, QLD**

Bioinformatician Data Analyst (Queensland COVID-19 Vaccination Safety and Efficacy Trial Program)

- Collaborated with researchers by performing data processing, data linkage, and analytics.
- Conducted data cleaning and processing of REDCap survey outcomes.
- Developed analytical methods, constructed and curated computational tools, conducted clinical research data mining, interpreted and analysed research outcomes, and integrated complex datasets for analysis.

Jul 2016-Dec 2016 **PONTIFICIA UNIVERSIDAD JAVERIANA | CALI, COLOMBIA**

Postdoctoral Research Fellow (Faculty of Engineering and Science)

- Proficient in using computational methods and software to model chemical reactions and nanoparticle synthesis.
- Skilled in programming languages for developing custom computational tools.
- Performed computational analysis of biological data related to the measurement of sucrose and starch in cells.
- Proficient with statistical software.
- Experienced in using HPC environments to run large-scale simulations and computations efficiently.
- Expert in analysing large datasets generated from experiments and simulations.

Feb 2017-Jul 2017 **PONTIFICIA UNIVERSIDAD JAVERIANA | CALI, COLOMBIA**

Casual Lecturer (Faculty of Engineering and Science)

- Taught Bioinformatics (PhD program in Engineering).
- Taught Informatics (Biology program).
- Taught Bioinformatics (Biology program).

Publications Record

- Ahmed SM, Dorey ES, Smith D, et al., **Diana Hermith- Ramirez**, et al. Strong Families Study: protocol for a co- designed birth cohort study with Aboriginal and Torres Strait Islander families in Queensland, Australia. *BMJ Open* 2026;16:e113766. <https://bmjopen.bmj.com/content/16/5/e113766>.
- Erika Dulay, Bronwyn Griffin, Du Trung, Craig A. McBride, Adrienne P. Hudson, **Diana Hermith-Ramirez**, Amanda J. Ullman. 2026. "Implementation of the 'Countdown to Theatre' Approach to Bridge the Evidence–Practice Gap in Paediatric Preoperative Fasting: A Quality Improvement Initiative". *Journal of Advanced Nursing*, 82(5), 5405–5418. <https://doi.org/10.1111/jan.70162>.
- Co-author (manuscript submitted). Efficacy of early Hand-Arm Bimanual Intensive Therapy Including Lower Extremities (HABIT-ILE) in young children with bilateral cerebral palsy: A Randomized Clinical Trial. Submitted to *Developmental Medicine & Child Neurology*.
- Co-author (manuscript submitted). Process of co-creating an Aboriginal and Torres Strait Islander longitudinal pregnancy cohort study (The Strong Families Study). Submitted to *The Lancet*.
- Matthew Lynch, Sophie Manoy, Peter D. Sly, Claire E. Wainwright, Ernst Wolvetang, John E. Feenstra, Jason Dowling, Robert S. Ware, Maharshi S. Patel, **Diana Hermith-Ramirez**, Adam Vogel, Kahn Preece, Tania Zappala, Shuan Dai, Ann Webber, Abrey Yeo, Goutham Subramanian, Geetha Rao, Cindy S. Ma, Sara Jose, Magtouf Gatei, Bowen Xin, Nicoletta Sandona, Peter Lewindon, Katherine G. Sinclair, Sam Nayler, Martin F. Lavin, David J. Coman/. (2025). "Phase 2a/b randomised placebo-controlled dose-escalation trial of triheptanoin for ataxia-telangiectasia: treating mitochondrial dysfunction with anaplerosis." *eBioMedicine*, Volume 118, 2025, 105840, ISSN 2352-3964, <https://doi.org/10.1016/j.ebiom.2025.105840>.
- K. Wildi, A. Bandera, D. Battaglini, S. Bertagnolio, A. Burrell, F. Roche Campo, A. Choi, **D. Hermith Ramirez**, S.-M. Cho, S.M. Colombo, J.V. Diaz, J.F. Fraser, S.S. Hwa, C.L. Hodgson, Y. Kelly, S. Khanduja, F. Kurbonov, J.G. Laffey, D. Franch Llasat, S. Mason, C. Robba, B. McNicolas, A. Muscatello, M. Panigada, J. Suen, L.F. Reyes, R. Ware, J.P. Wei Ling, Y.W. Chia, P. Zhang, and G. Li Bassi. (2025). "Functional, Pulmonary, Psychological and Cognitive Status Up to 12 Months Post-ICU Discharge in COVID-19 Patients: A Preliminary Analysis of the International Aftercor Study [abstract]." *Am J Respir Crit Care Med* 211:A2865. <https://doi.org/10.1164/ajrccm.2025.211.Abstracts.A2865>.
- Munns, C. F. B., Laura A.; Boyd, Roslyn N.; Brookes, Denise; Taylor, Maddison J.; Pivonka, Peter; Nassar, Natasha; Trost, Stewart G.; Little, J. Paige; Tucker, Kylie; Burns, Joshua; Sakzewski, Leanne; Badawi, Nadia; Ware, Robert S.; Comans, Tracy; Willoughby, Kate L.; Paget, Simon; Oftedal, Stina; Keramat, Syed Afroz; Bell, Kristie; Copeland, Lisa; Edwards, Priya; Wynter, Meredith; McGowan, Timothy; Goodwin, Bruce; Reddan, Tristan; Briody, Julie; Pagnozzi, Alex M.; Ebeling, Peter; Milat, Frances; Simm, Peter; Stewart, Kirsty; Centre, Jacqueline; Smithers Sheedy, Hayley; McKenzie, Anne; Stott, Susan; Sorhage, Alexandra; Hofman, Paul; Wilson, Nichola; **Hermith-Ramirez, Diana**; Rutz, Erich. (2025). "Study protocol for the Australasian Cerebral Palsy Musculoskeletal Health Network (AusCP MSK) prospective cohort study: early detection of musculoskeletal complications in young children with moderate to severe cerebral palsy (GMFCS III–V)". *BMJ Open* 15(4): e095526.
- Burgess A, Chatfield MD, **Hermith-Ramirez D**, Jackman M, Thorley M, Reedman S, Boyd RN, Sakzewski, L. Active upper-limb therapies for hand function, individual goal achievement, and self-care in children with cerebral palsy: A network meta-analysis. *Dev Med Child Neurol*. 2025; 00: 1-11. <https://doi.org/10.1111/dmnc.16476>.

- Burgess, Andrea, Reedman, Sarah, Norfolk, Esther, Hines, Ashleigh, **Hermith-Ramirez, Diana-Patricia**, Chatfield, Mark, Boyd, Roslyn N., and Sakzewski, L. (2025). Responsiveness, reliability and minimal important change of the Pediatric Evaluation of Disability Inventory–Computer Adaptive Test – Daily Activities (PEDI-CAT_DA) domain. 37th Annual Meeting of the European Academy of Childhood-onset Disability (EACD) and 4th Triennial Meeting of the International Alliance of Academies of Childhood Disability (IAACD), Heidelberg, Germany, 24-28 June 2025. Chichester, West Sussex, United Kingdom: Wiley-Blackwell.
- Burgess, Andrea, McLeod, Kate, Goodman, Sarah, **Hermith-Ramirez, Diana-Patricia**, Boyd, Roslyn, and Sakzewski, Leanne (2025). Preschool Hand-Arm Bimanual Intensive Therapy Including Lower Extremities (HABIT-ILE) in Australia. 37th Annual Meeting of the European Academy of Childhood-onset Disability (EACD) and 4th Triennial Meeting of the International Alliance of Academies of Childhood Disability (IAACD), Heidelberg, Germany, 24-28 June 2025. Chichester, West Sussex, United Kingdom: Wiley-Blackwell.
- Davies, Janet ; Gregory, Rebecca; Hung, Jacky ; Choy, Benson ; Zournazi, Anna; Turner, Danielle ; Vardon, Peter ; Ward, Selina ; Wailan, Alexander; **Hermith-Ramirez, Diana-Patricia**. Queensland COVID-19 Vaccination (QoVAX) Safety and Efficacy Trial Pilot Study in adults aged 18 years and over [Dataset]. Metro North Hospital and Health Service.dataset. 2023;10.60540/Y00EDE.
- **Hermith Ramirez Diana Patricia**; Hernandez Pedro; Jaramillo Botero Andres. Synthesis of Functionalised Gold Nanoparticles and Nanocompounds Containing Same for Measuring Sucrose or Starch in Cells. 2022;(E.P. Patent No. 3567008). Google LLC. <https://patents.google.com/patent/EP3567008>
- Jaramillo Botero Andres, **Hermith Ramirez Diana Patricia**; Hernandez Pedro. Synthesis of Functionalised Gold Nanoparticles and Nanocompounds Containing Same for Measuring Sucrose or Starch in Cells. 2022;(U.S. Patent No. 11413683). Google LLC. <https://patents.google.com/patent/US11413683>
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- Bernini, A., Brodo, L., Degano, P., Falaschi, M., **Hermith, D.** Process calculi for biological processes. Natural Computing. 2018;17(2):345–373.
- Carlos Elías Rincón; **Diana Patricia Hermith**; Wilson Bautista Molina. Social innovation and its importance in knowledge management and citizen participation. Trilogía Ciencia Tecnología Sociedad. 2018;10 (18):51-61.
- Bodei, C.; Brodo, L.; Gori, R.; Levi, F.; Bernini, A.; **Hermith, D.** A static analysis for Brane Calculi providing global occurrence counting information. Theoretical computer science. 2017; 696:11-51.
- C. Olarte, D. Chiarugi, M. Falaschi, **D. Hermith**. A proof theoretic view of spatial and temporal dependencies in biochemical systems. 2016;641:25-42.
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- Chiarugi, D., Falaschi, M., **Hermith, D.**, Olarte, C. Verification of Spatial and Temporal Modalities in Biochemical Systems. Electronic Notes in Theoretical Computer Science. 2015; 316:29-44.

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- **Hermith-Ramirez, D. -P.** (2011). Modeling Cellular Signaling Systems: An Abstraction-Refinement Approach. Lambert Academic Publishing. Retrieved from <https://www.lap-publishing.com/>