

01 PROFILE

Regulated-science professional with six years' experience in GMP pharmaceutical R&D and current experience producing AI and medical-device compliance documentation. My work combines rigorous evidence evaluation, technical governance, systematic documentation and practical problem-solving. I am also preparing to begin an MRes in Health Psychology focused on adrenal insufficiency, health-related quality of life, patient experience and personalised self-management.

AI GOVERNANCE & COMPLIANCE EU AI Act conformity documentation, EU MDR intended-purpose and risk analysis, and structured technical documentation.	REGULATED SCIENCE Six years in GMP pharmaceutical R&D, chromatography, method development, scale-up, quality and reproducibility.	HEALTH RESEARCH Incoming MRes; health outcomes, mixed-methods orientation, evidence synthesis and patient-centred research.
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02 PROFESSIONAL EXPERIENCE

Freelance Regulatory Compliance Consultant | EchoMind Mar 2026 - Present

- Produce regulatory compliance documentation for two commercial AI-enabled products under the EU AI Act and EU MDR frameworks.
- Author intended-purpose and risk analyses under EU MDR Article 2(1), alongside Declaration of Conformity and supporting technical documentation.
- Translate evolving regulatory requirements into structured, review-ready documentation, working directly with the responsible sign-off authority.

Research Chemist | Almac Sciences, Northern Ireland Jan 2018 - Jan 2024

- Designed, optimised and executed GMP-compliant preparative chromatography workflows, consistently achieving greater than 99% purity on multi-kilogram API batches.
- Developed and troubleshoot complex chiral and achiral separations and impurity isolations under strict quality and reproducibility standards.
- Authored SOPs, qualification protocols and detailed technical reports supporting method validation, process transfer and audit-ready delivery.
- Researched and implemented multi-column chromatography technology to improve purification throughput and efficiency.
- Interpreted analytical datasets and collaborated across analytical, process and quality teams to deliver time-critical project milestones.

03 SELECTED RESEARCH & APPLIED AI

MRes Researcher (Incoming) | Ulster University, Coleraine 2026/27 intake

Status: incoming, not yet enrolled. **Supervision:** Dr Liz Simpson. Research focus: the impact of adrenal insufficiency on health and well-being in adults on the island of Ireland, with particular attention to health-related quality of life.

- Research direction includes patient experience of emergency and surgical care, quality of life, stress and coping, and personalised self-management.
- Developed a multi-agent PubMed literature-search pipeline using optimised query design, alongside reusable tools for paper discovery and lawful open-access resolution.
- Produced an interactive research dossier and a grant-readiness checklist and funding matrix for early-stage project development.

04 APPLIED AI & RESEARCH AUTOMATION

- Independent Applied AI & Research Automation** | Selected project work Ongoing
- Prototyped multi-agent evidence-synthesis workflows that translate open-ended questions into traceable, testable research processes.
 - Built AI-assisted tooling for literature retrieval, document generation, structured research planning and scheduled study workflows.
 - Use Git and GitHub, PubMed E-utilities, prompt and query optimisation, and reproducible working practices to support practical delivery.

05 EDUCATION

- MSci Medicinal Chemistry (2:1 Honours)** | Queen's University Belfast 2014 - 2018
- Undergraduate thesis: Antimicrobial Peptide Tridecaptin A1 Analogue Synthesis and Testing.
 - Academic foundation in analytical chemistry, experimental design, literature review, scientific writing, statistical analysis and hypothesis testing.

06 SELECTED PUBLICATIONS

- Ballantine, R. D.; McCallion, C. E.; Nassour, E.; Tokajian, S.; Cochrane, S. A. **Tridecaptin-inspired antimicrobial peptides with activity against multidrug-resistant Gram-negative bacteria.** *MedChemComm* 2019, 10, 484-487. DOI: 10.1039/C9MD00031C
- Bann, S. J.; Ballantine, R. D.; McCallion, C. E.; Qian, P.-Y.; Li, Y.-X.; Cochrane, S. A. **A Chemical-Intervention Strategy To Circumvent Peptide Hydrolysis by d-Stereoselective Peptidases.** *J. Med. Chem.* 2019, 62, 10466-10472. DOI: 10.1021/acs.jmedchem.9b01078

07 SELECTED EVIDENCE OF DELIVERY

6 YEARS GMP pharmaceutical R&D	>99% purity on API batches	MULTI-KG preparative scale delivery	EU AI ACT and EU MDR documentation
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08 CORE EXPERTISE

AI GOVERNANCE & REGULATION	EU AI Act, EU MDR intended purpose, risk analysis, Declaration of Conformity, technical documentation and quality systems.
RESEARCH & EVIDENCE	Study design, hypothesis-driven investigation, systematic literature review, health-related quality-of-life and psychometrics concepts, mixed-methods orientation.
DATA & AUTOMATION	Structured data analysis, Python scripting and automation, Git/GitHub, LLM tool orchestration and PubMed query construction.
LABORATORY & QUALITY	Preparative and analytical HPLC, LCMS, multi-column chromatography, method development and validation, GMP and API purification.
PROFESSIONAL DELIVERY	Cross-functional collaboration, stakeholder communication, audit-ready documentation, evidence-based decisions and time-critical execution.

References available on request.