Andrew M Thomson PhD

Director & Principal Consultant

Education

1990 Ph.D. Aberdeen University, UK
Microbial Genetics

1986 B.Sc. (Hons 2i) Plant Biology, University of St. Andrews, UK

contactus@greyrigge.com

www.greyrigge.com

+81(0)8046362483

About

Andrew is a seasoned biotech and medical research consultant with over 30 years of global experience spanning cellular therapies, vaccines, RNA and antibody-based therapeutics, and biodefense. He has led multidisciplinary teams and strategic collaborations across Australia, Asia, the US, and Europe, delivering clinical and commercial products from preclinical development through GMP manufacturing. As Co-founder and Director of GreyRigge Associates, he provides expert CMC, analytical, and process development support to clients ranging from start-ups to multinational corporations. His career includes impactful roles in stem cell therapies, vaccine assay development, and biodefense preparedness, with a strong foundation in molecular biology, regulatory compliance, and quality-by-design methodologies. Andrew is recognised for his ability to translate complex scientific challenges into actionable strategies that accelerate product development and regulatory success.

Skills & Impact

Strategic Biotech Leadership: Over three decades of experience leading cross-functional teams in biotech, cell therapy, and vaccine development across global markets including Asia, Europe, Australia, and the US.

CMC and GMP Expertise: Deep knowledge of Chemistry, Manufacturing, and Controls (CMC) and GMP-compliant manufacturing, with a proven track record in delivering clinical and commercial products, including IND and BLA submissions.

Process and Analytical Development: Extensive experience in process design, scale-up, validation (PPQ, PLE), and analytical assay development using QbD and DoE methodologies for vaccines, RNA therapeutics, and stem cell-based products.

Regulatory and Quality Systems: Skilled in regulatory compliance with FDA, EMA, and PMDA standards, including risk assessments (FMEA), CAPA, and pre-approval inspections (PAI).

Biodefense and Emerging Pathogens: Led UK government biodefense initiatives, developing detection technologies for biological threats and emerging infectious diseases, integrating genomics, proteomics, and bioinformatics.

Scientific Innovation and Translation: Delivered impactful translational research in stem cell biology, RNA regulation, and cancer therapeutics, with multiple high-impact publications and successful technology transfers to CMOs.

Client and Partner Engagement: Trusted advisor to biotech start-ups and multinational firms, providing consultancy on product development strategy, technical due diligence, and manufacturing partnerships.

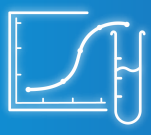
Team and Project Management: Managed diverse scientific and operational teams, overseeing budgets, timelines, and cross-functional collaboration to meet critical milestones in product development and commercialisation

Andrew M Thomson

Director & Principal Consultant

Areas of Expertise

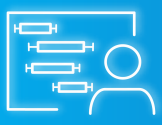
Strategic Planning & Due Diligence



Assay & Quality Control

CMC & Manufacturing

Preclinical, Non-Clinical & Toxicology



CDMO Management

Formulation Development & Stability

QA, Auditing & Regulatory Affairs

Clinical Development & Monitoring

Publications/Presentations:

- Nature 2008. 455 (7126),1124-8: Micro RNAs to Nanog, Oct4 and Sox2 coding regions modulate embryonic stem cell differentiation.
- Cell 2006. 126, 1203-1217: A pattern-based method for the identification of microRNA binding sites and their corresponding heteroduplexes.
- Stem Cells 2008. 26(1), 17-29: MicroRNA-134 induces differentiation of mouse embryonic stem- and neural precursor-cells.
- Nucleic Acids Research 2014. 42(12), 7997-8007: Divergent Lin-28-mRNA associations result in translational suppression upon the initiation of differentiation.
- Journal of Biological Chemistry 2000. 275, 31609-31615: Thyrotropin releasing hormone and epidermal growth factor regulate iron regulatory protein binding in pituitary cells.

Experience

Andrew brings over 30 years of leadership in biotechnology, pharmaceutical development, and medical research, with a focus on cell therapies, vaccines, RNA and antibody-based therapeutics, and biodefense. His career spans senior roles in industry, government, and academia, with a consistent track record of delivering clinical and commercial products across global markets.

GreyRigge Associates (2024–Present)

Co-founder and Director of a biotech consultancy supporting global clients with CMC, analytical, and process development for advanced therapies. Successfully led IND submissions, VC assessments, and client onboarding across RNA, extracellular vesicle, antibody, and stem cell-based modalities.

Mesoblast, Singapore (2014–2022)

Senior Director and Director of Manufacturing, led GMP manufacturing and process development for stem cell therapies across four indications. Delivered clinical and commercial products, implemented Quality by Design (QbD) and FMEA strategies, managed CDMO relationships and regulatory inspections and supported IND and BLA submissions.

Inviragen/Takeda Vaccines, Singapore (2010–2013)

Head of Analytical Development, responsible for assay development and tech transfer for dengue and EV71 vaccines. Introduced QbD and Design of Experiment approaches, managed clinical sample testing, and supported IND filings.

Genome Institute of Singapore (2004–2009)

Led research in stem cell biology, mRNA regulation, and biomarker discovery. Managed multidisciplinary teams and international collaborations, delivering high-impact publications and translational research outcomes.

Health Protection Agency, UK (2003–2004)

Clinical Scientist in biodefense, developing detection technologies for biological threats and emerging pathogens. Collaborated with UK government and defence agencies on preparedness and response strategies.

Medical Research Roles (1990–2003)

Held senior research and teaching positions in Australia and the UK, focusing on cancer biology, endocrinology, and microbial genetics. Supervised PhD students, managed research programs, and contributed to institutional leadership.