



epichem

CORPORATE PRESENTATION
2020



A PASSION FOR CHEMISTRY HELPING OTHERS SUCCEED



Our Formula. Your Success.

- ◆ Founded in 2003.
- ◆ Chemistry is our Business.
- ◆ Strong Team of PhD-qualified Chemists.
- ◆ State-of-the-Art and Purpose-Built Laboratories.
- ◆ Australian-Based Contract Research Organisation.
- ◆ Registered Research Service Provider.



MOLECULES MADE TO ORDER

DRUGS BY DESIGN



Our Formula. Your Success.

Our Australian Chemistry Team are Expert Service Providers for:

- ◆ Synthetic & Medicinal Chemistry.
- ◆ Pharmaceutical Reference Materials.
- ◆ Custom Synthesis.
- ◆ Analytical Chemistry.
- ◆ Technical Problem Solving.



AUSTRALIA'S PREMIER CHEMISTRY BUSINESS

Technical Experts

- ◆ Registered Research Agency.
- ◆ Certified to ISO 9001.
- ◆ Accredited to ISO 17025 and 17034.

Innovative Problem Solvers

- ◆ Top Australian employer of PhD graduates.
- ◆ 16 years success helping clients worldwide.

Australian Based Export Leader

- ◆ National and State Export Award Winner.



Our Formula. Your Success.



VISION, MISSION & VALUES

Vision

To be the Chemistry Provider of Choice offering the most Complete Suite of Organic Chemistry Services and Products.

Mission

To deliver world-class, innovative and high quality Chemistry solutions, utilising our expertise and capability in Medicinal, Synthetic Organic and Analytical Chemistry to drive outcomes for our clients.

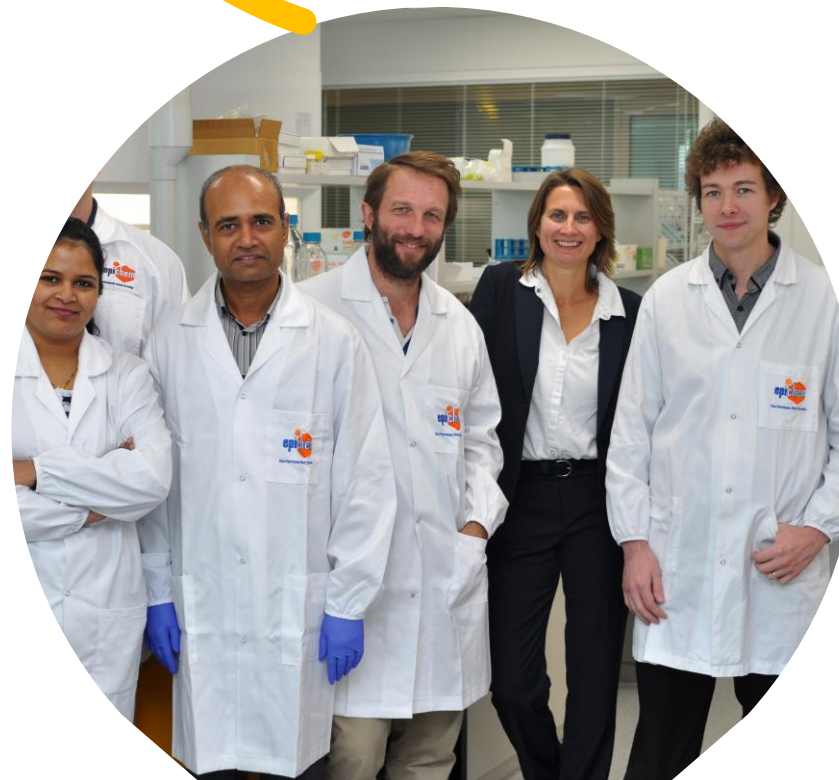
Values

- Expertise.
- Quality.
- Service.
- Technology.



OUR VALUABLE TEAM

- ◆ Chief Executive Officer (CEO)
- ◆ Chief Scientific Officer (CSO)
- ◆ Head of Production
- ◆ Head of Quality
- ◆ Head of Analytical Services
- ◆ Head of Corporate Services
- ◆ Project Leaders
- ◆ PhD Chemists
- ◆ Synthetic Organic Chemistry Experts
- ◆ Dedicated Functional Support
 - Finance and Procurement, Facilities and Logistics, IT and Data Management.



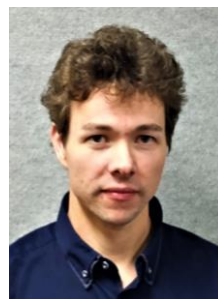


Colin La Galia
Chief Executive Officer

Dr Martine Keenan
Chief Scientific Officer



Dr James Rixson
Head of Production



Lauren Nieuwpoort
Head of Corporate Services



Boon Tan
Head of Quality



Our Formula. Your Success.

MEET OUR LEADERSHIP TEAM

MEET OUR LEADERSHIP TEAM



Colin La Galia, Chief Executive Officer

- 🟡 Qualifications in Pharmaceutical Manufacturing, Project Management, Human Resources and Business Administration.
- 🟡 30 years' senior executive experience in Pharmaceutical, Diagnostics and Global Healthcare.
- 🟡 Experience includes Abbott Rapid Diagnostics, Alere Inc, Glaxo SmithKline, Merck Sharp & Dohme, Origin Healthcare and Hollywood Fertility Centre

Martine Keenan, Chief Scientific Officer

- 🟡 PhD in Organic Chemistry from the University of London and post-doctoral research at the Max-Planck Institute in Germany. Fellow Royal Society of Chemistry.
- 🟡 Martine has over 20 years' experience in pharmaceutical and contract research, including oncology, neuroscience and infectious diseases therapeutics.
- 🟡 Published numerous papers, presented at conferences globally, and listed as an inventor on many patents during the course of her career.

James Rixson, Head of Production

- 🟡 PhD in Organic Chemistry from the University of Western Australia.
- 🟡 Technical expert in organic chemistry and a tenacious problem solver with a knack for innovation.
- 🟡 9 years' experience in industry method development, route planning and specialty chemical synthesis.

Lauren Nieuwpoort, Head of Corporate Services

- 🟡 MBA from Curtin University, BSc in Biomedical Science & Molecular Biology from Murdoch University, and a Diploma of Human Resource Management from AIM WA.
- 🟡 9 years' experience maximising workplace efficiency and development in a highly technical environment.
- 🟡 Uniquely skilled in science, business, and languages, Lauren works closely with Epichem's internal and external stakeholders to foster key relationships and facilitate operations.

Boon Tan, Head of Quality

- 🟡 BSc in Analytical Chemistry, holds a Six Sigma certification, and is fluent in multiple Asian languages.
- 🟡 With 8 years' industry experience in analytical chemistry and quality management, Boon supports the delivery of high quality products and services by maintaining Epichem's ISO certification and accreditation.
- 🟡 Boon has a proven track record of expert problem-solving, technical support and development of a comprehensive array of analytical methods and statistical analyses.

MEDICINAL CHEMISTRY EXPERTISE

Medicinal Chemistry & Drug Discovery

- ◆ Hit-to-Lead projects.
- ◆ Lead optimisation towards candidate selection.
- ◆ Synthesis of analogue libraries and scale-up.
- ◆ Creative problem solving, innovative thinking.
- ◆ IP Generation.
- ◆ Drug conjugates, fluorescent tags & metabolites.
- ◆ Project management.
- ◆ Seamless insertion into established project teams.
- ◆ Cost effective, flexible FTE contract options.

Proven Track Record of Success

- ◆ Experienced synthetic and medicinal chemists
 - PhD qualification
 - Multinational biotechnology experience
 - CROs
- ◆ Project milestones, preclinical & clinical candidates.
- ◆ Network of collaborators and service providers
 - Analytical services
 - SFC chromatography
 - computational chemistry
 - X-ray, ADMET, PK
- ◆ Peer-reviewed publications.
- ◆ Patents.
- ◆ International conference presentations.

YOUR PROJECTS. COLLABORATING. VALUE ADDING.

Synthetic Chemistry

From Client List of Compounds

- Efficient analogue preparation.
- Feedback on target tractability.
- Alternative analogues.
- Milligram to multi-gram scale.
- Regular reports.
- Patent write-ups.
- Shipping or storage of compounds.

Medicinal Chemistry

From Client Lead Molecule Request

- Explore optimisation.
- Improve physicochemical, ADMET, PK Properties.
- Propose strategy.
- Design compound libraries.
- Synthetic route development & Optimisation.
- Advise on profiling.
- Regular data and reports.

Project Integration

From Client Discovery Program

- Develop medicinal chemistry strategy in partnership.
- Drive project progress.
- Analogue design.
- Efficient SAR iteration.
- Establish synthesis, shipping, testing timelines.
- Problem solve.
- Exchange ideas.

Our Quality Accreditation

Quality Accreditation is a system of quality control and quality assurance through the implementation of procedures that are assessed and accredited by an independent body.



ISO-9001

- Requirement for a QMS, including documentation, planning and determining process interactions.
- Helps organization to consistently produce desired outcomes.
- Ensures ongoing controls.
- Enhances customer satisfaction by meeting customer requirements.
- Facilitates establishment of quality model.
- Manages and minimizes risk exposure.

ISO-17034

- Highest achievable level ISO Standards for Reference Material Producer (RMP).
- Provides a benchmark for maintaining Competence.
- Increases RMPs ability to produce reliable results.
- Provides confidence to customer that RMs are produced according to technically valid and internationally recognised principles and suitable for intended uses.

ISO-17025

- Recognition of Laboratory Testing Competence.
- Controls laboratory method variation.
- Increases validity and suitability of test methods.
- Ensures suitability, calibration and maintenance of test equipment and testing environment.



OUR FACILITIES

Laboratories

Epichem maintains some of the best equipped laboratories in the Southern Hemisphere for the synthesis of drug analogues and other small organic molecules.

Leading-edge technology for organic synthesis on a milligram to multigram scale.

Quality certification to ISO 9001 and Accredited to ISO 17025 and 17034

Equipment & Analytical Support

- Microwave, high pressure and photochemistry reactors.
- Parallel synthesis and automated purification equipment including normal & reverse phase chromatography & prep HPLC.
- Flash Chromatography
- Analytical & Prep. HPLC
- LC-MS
- GC-MS
- NMR
- Karl Fischer
- Melting point apparatus
- FTIR
- CHN, ASH, ICP, XRF, XRD, Ion Chromatography, Total Kjeldhal

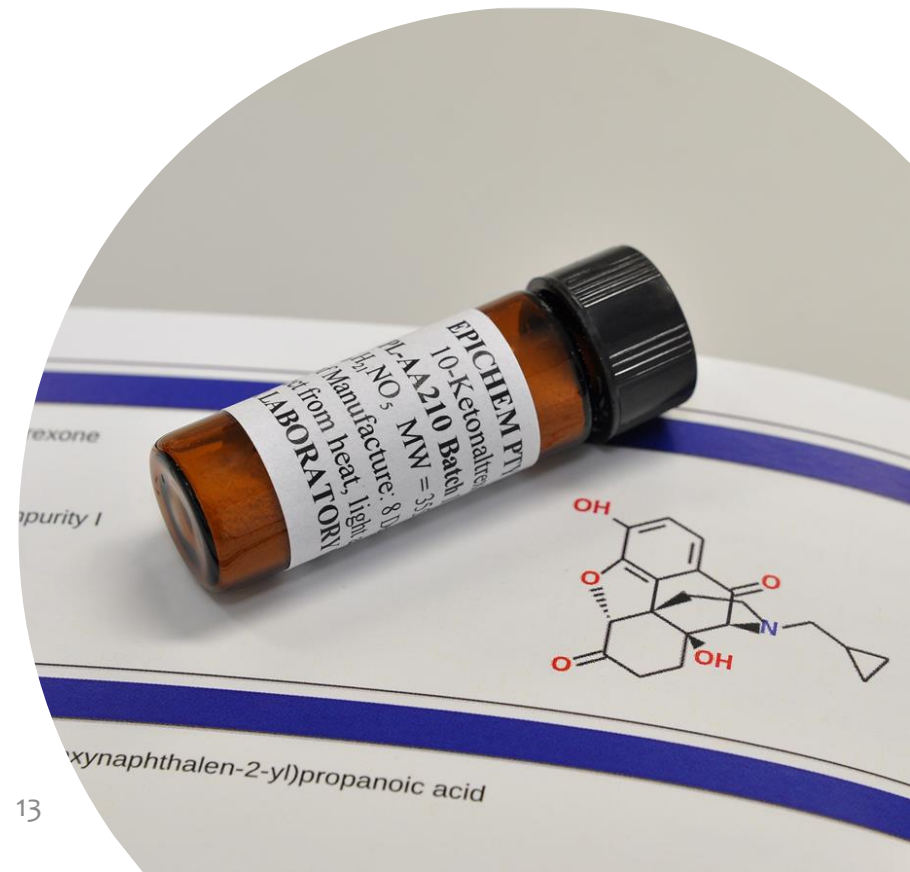
REFERENCE MATERIALS MADE IN AUSTRALIA

Reference Standard Catalogue

- ◆ Range of rare standards unique to Epichem.
- ◆ Catalogue of impurities, degradants, metabolites of APIs & excipients.

ISO 17034 Accreditation

- ◆ Comprehensive Product Information Sheet.
- ◆ Products maintained in stock.
- ◆ Shipped world-wide with reliable, secure global couriers.



FINE CHEMICALS AND TECHNICAL SERVICES

- ◆ Custom synthesis of single molecules.
- ◆ Impurities, degradants and metabolites of APIs & excipients as custom reference materials.
- ◆ Deuterated and ^{13}C labelled molecules, including metabolites for identification.
- ◆ Isolation, identification and synthesis of impurities to support pharmaceutical manufacturing.
- ◆ Milligram to multigram scale.
- ◆ Consultancy and problem solving.



ANALYTICAL SERVICES

- ◆ Routine analysis and technical support.
- ◆ Accurate data generation.
- ◆ Rapid data turnaround.
- ◆ Analytical methods validated against published international standards.
- ◆ Expert technical support to resolve your analysis needs.
- ◆ Outstanding client feedback.



CHEMISTRY SERVICES

BUSINESS MODEL



Our Formula. Your Success.

- Medicinal Chemistry.
 - Hit Assessment, Lead Generation or Optimisation.
- Synthetic Chemistry.
 - Scaffolds, Intermediates, Analogues, Building Blocks.
 - Metabolites, Impurities, Reference Compounds.
- Pharmaceutical Reference Standards.
- Analytical Chemistry.
- Library Design and Synthesis.
- Custom and Speciality Custom Synthesis.
 - Fine Chemicals, Key starting materials, Agro Chemicals.
- FTE (Full-Time-Equivalent) Model.
- FFS (Fee-for-Service) Model.



CHEMISTRY SKILLS

Types of Chemistries

- Heterocyclic, polar, bicyclic synthesis.
- Peptides and Bioconjugates.
- Carbohydrates.
- Material Science.
- Natural Product Synthesis.
- Chiral Catalysis.
- Fluorescent Tagging.
- Organometallic Chemistry.
- Macrocycles and Cryptands.
- Agricultural Chemical Synthesis.
- Fused Polycyclic Systems.

Areas of Expertise

- Synthetic Organic Chemistry.
- Medicinal Chemistry.
- Library Design and Optimisation.
- Computational Chemistry.
- Coupling Chemistry.
- Solid-Phase Chemistry.
- Stereochemistry.
- Technical Problem Solving.
- Cellulose Chemistry.
- Custom Synthesis.
- Reference Standards.
- Analytical Chemistry.

Reactions & Reagents

e.g.

- Hazardous Chemistry:
 - Nitration,
 - Cyanation
 - Phosgene reactions
 - Liquid ammonia reactions
 - Hydrogenation
- Suzuki, Sonogashira Chemistry using Pd-based reagents.
- N-Oxidations.

OUR SCIENTIFIC PROCESS DESIGN AND SYNTHESIS

- ◆ We are committed to understanding the client's objectives.
- ◆ Design the most efficient route based on literature and experience.
- ◆ Time-sensitive.
- ◆ Cost-effective.
- ◆ Eco- and process friendly services.



OUR SCIENTIFIC PROCESS

CHARACTERIZATIONS & DELIVERABLES

- Final compounds will be characterized by complete spectral data such as ^1H NMR, HPLC or LC-MS.
- All intermediates are characterized by either LCMS or ^1H NMR.
- 99% HPLC Purity (in general), 95-98%/>98% for specific compounds. Purity is driven by client needs.
- Weekly/Biweekly progress updates.
- Final Report with complete analytical data.



OUR SCIENTIFIC PROCESS

DELIVERY AND COMMITMENT

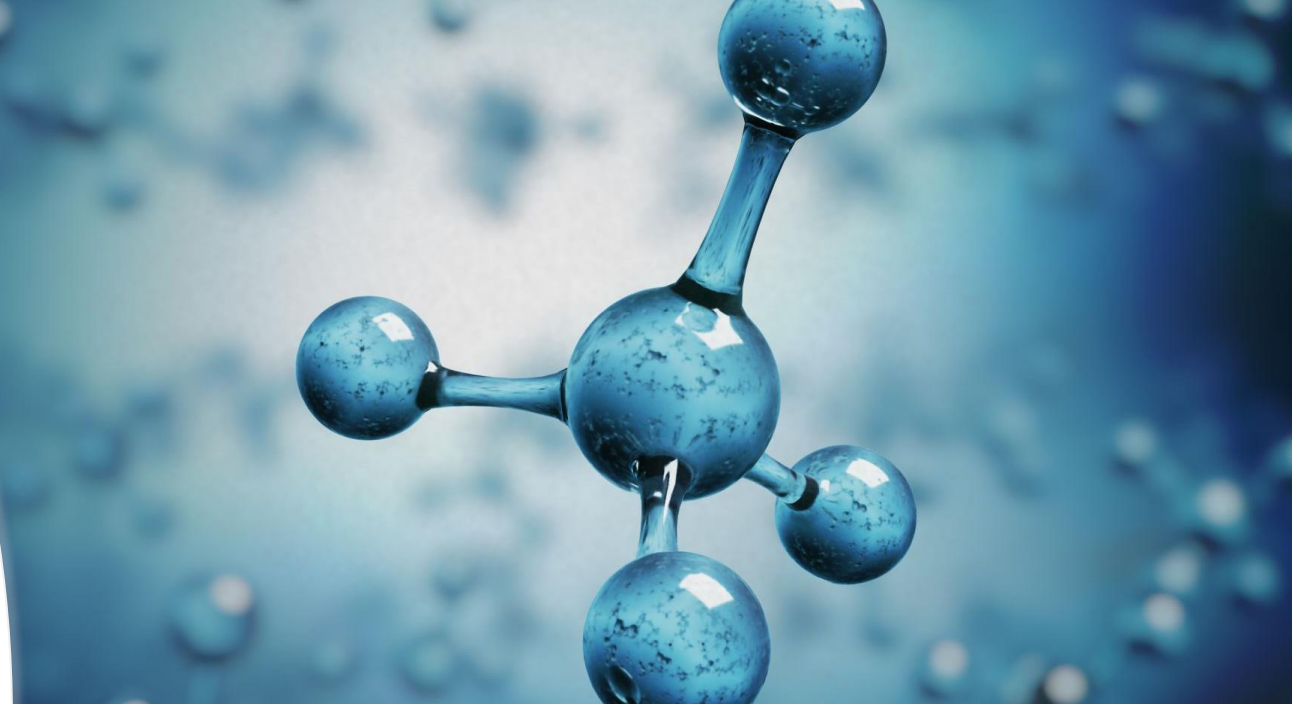
TIMELINES

- Track record of accurate projected timelines for Literature reported compounds.
- Projected timelines for Exploratory compounds.

QUALITY

- Highly committed to providing services that exceed client's expectations with required quality.
- Focusing on constant quality improvement and fostering quality compliant culture across the company.

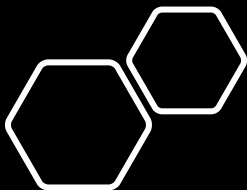
“Dedicated Project Leader for each FTE collaboration”



MANAGEMENT & COMMUNICATION BY PROJECT LEADER

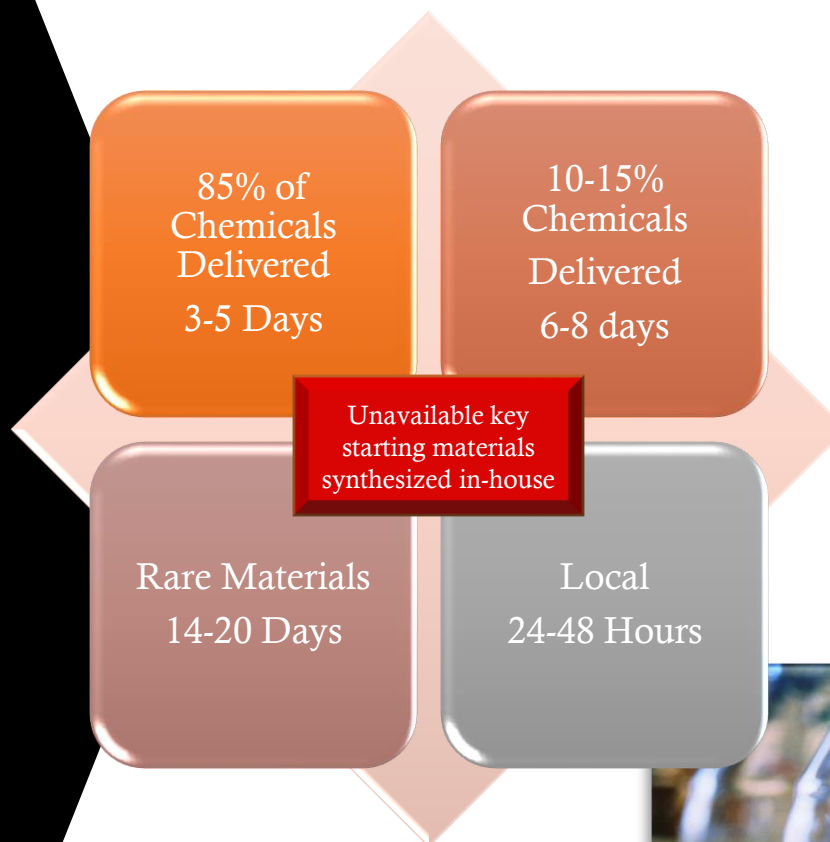
- ◆ Project Leader is the single point of contact for each client.
- ◆ Each project assigned a unique project code.
- ◆ Regular phone, video calls and emails as per client's specifications.
- ◆ Project planning in partnership with Bench Chemists.
- ◆ Daily follow up, analysis of spectral data and problem solving.
- ◆ FTE projects - weekly or biweekly progress reports.
- ◆ Final detailed report to client spectral specifications.
- ◆ Gains client approval for shipping and tracks to destination.





PROCUREMENT & LOGISTICS CHEMICAL PROCUREMENT

- Same-day dispatch from major vendors.
- Periodic review of key vendors.
- Fasttrack at customs for import.
- Preferred relationship with US, European and local vendors.
- Access to comprehensive chemistry literature and databases.
- In-house synthesis for commercially unavailable/expensive key starting materials (KSM)



Our Formula. Your Success.



IP PROTECTION & CONFIDENTIALITY

IP Intellectual Property

- Outcome of client projects at our laboratories belongs entirely to our client.
- Epichem will transfer IP.

Confidentiality

- Each project under a given client is tracked by a unique code.
- Project codes are used for raw material purchase, analytical data, shipping of compounds, generation of reports.
- Project details are known at project leader level only.
- All the generated data will be stored on secured server.



OUR BELIEFS

- ◆ **Reliability and Integrity**
quality, confidentiality and timeliness
- ◆ **Customer Commitment**
delivering the highest standards
- ◆ **Valuing our People**
success is based on the strength of our team
- ◆ **Innovation**
track record of successful client projects
- ◆ **Cost and Competition**
exceptional value for money and R&D tax concessions
- ◆ **Community and Environment**
responsible waste disposal, efficient energy usage, support for university student prizes and scholarships



OUR AWARDS

2020 GHP Biotechnology Most Innovative Australian Chemistry Service Provider and Best in Organic Chemistry Solutions.

2019 Epichem wins the International Health Award at the WA Industry and Export Awards.

2019 Chief Scientific Officer, Dr Martine Keenan, is awarded Fellowship to the Royal Society of Chemistry, UK.

2018 ISO 17025 and ISO 17034 accreditation.

2017 WA Exporter of the Year Award and the Health & Biotechnology Award, WA Industry & Export Awards.



TESTIMONIALS



“Prompt and expert response after enquiry, quick packing and delivery, and competitive price. In particular, we liked the in-depth characterization documentation supplied for the reference material.”

- *Pharmaceutical Manufacturer
Hungary*



“They provide great service, not just a great product. Epichem stands behind their product and readily shares its expertise.”

- *Healthcare Products Manufacturer
United States*



“Mr Tan was very helpful with short turnaround times and small sample sizes. He made the whole process very easy and took the time to explain the more technical details to us. Very good services.”

- *Legal Services
Australia*



“Epichem are easy to work with, eager to help when things don’t go to plan and highly responsive.”

- *Product Development & Commercialisation
Australia*



“Pro-active team who go the extra-mile to get things done. Collaborative spirit, efficient project management, work effectively across a global research network. Nice team, ability to work in a multicultural multidisciplinary environment.”

- *Research & Development Organisation
Switzerland*

CONTACT Us

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