



CSL

CSL
2024 Research Acceleration Initiative

February 2024
Dr Priscilla Hong
Senior Manager
Research Innovation

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AGENDA



Overview of CSL



CSL Research
Acceleration Initiative



Benefits of
collaborating with CSL



CSL's core
Therapeutic Areas



Areas of interest for
collaboration



Questions



Overview of CSL



Top 25 Biotech Companies of 2024

Rank	Company	Ticker Symbol	Market Cap (US\$ Billion)
1	Novo Nordisk	NOVO-B (CPH)	430.96
2	Thermo Fisher Scientific	TMO (NASD)	189.20
3	Amgen	AMGN (NASD)	143.98
4	Gilead Sciences Inc	GILD (NASD)	98.41
5	Regeneron Pharmaceuticals	REGN (NASD)	91.51
6	Vertex Pharmaceuticals	VRTX (NASD)	90.24
7	CSL Ltd	CSL (ASX)	84.82
8	Chugai Pharmaceutical	4519 (TOKYO SE)	60.86
9	Daiichi Sankyo	4568 (TOKYO SE)	54.33
10	Seagan	SGEN (NASD)	41.31
11	Jiangsu Hengrui Medicine Co Ltd	600276 (SHSE)	40.59
12	Samsung Biologics	207940 (KRX KE)	38.31
13	Agilent Technologies	A (NYSE)	37.16
14	Sun Pharmaceutical Industries	SUNPHARMA (NSE)	35.54
15	Biogen	BIIB (NASD)	34.68
16	WuXi App Tec	603259 (SSEC)	31.46
17	Moderna	MRAN (NASD)	30.61
18	Lonza	LONN (SWX)	27.77
19	Argenx	ARGX (NASD ENX)	26.79
20	BioNTech	BNTX (NASD)	24.79

CSL's Key Global R&D Locations



Expanding footprint and alliances in leading biomedical locations centres

>2,000+ employees in 10 countries



Driven by **Our Promise**

Research Acceleration Initiative



CSL's Research Acceleration Initiative

Objective: to build relationships with entrepreneurial researchers and fastrack discovery of innovative medicines that address unmet needs

Why? Early collaborations with high quality academic partners are key to building a sustainable pipeline

CSL's RAI provides a differentiated approach to partnering:

- ✓ Up to USD \$400,000 funding over 2 years
- ✓ CSL scientific champion assigned to each project
- ✓ Focused on early-stage projects
- ✓ Simple and fast 300-word initial application
- ✓ Clear and transparent timelines



CSL Research Acceleration Initiative

Seeking Expressions of Interest from Research Organizations

CSL is a leading global biotech company that develops and delivers innovative biotherapies to help people living with life-threatening medical conditions live full lives.

CSL's **Research Acceleration Initiative** aims to fast-track discovery of innovative biotherapies through partnerships between CSL and global research organizations. These partnerships provide funding and access to industry experts for scientists working on novel biotherapeutic strategies in CSL's therapeutic areas.

Expressions of interest are sought from Business Development / Commercialization representatives across global research organizations that wish to participate in the 2024 CSL Research Acceleration Initiative.

The 2024 Research Acceleration Initiative will focus on innovative research projects that address unmet medical needs and are aligned with CSL's **Therapeutic Areas** and scientific **Platforms**:



To register your research organisation please email RAI@csl.com.au by 15th December 2023

CSL has invested in 30+ RAI partnerships since 2019

"We had a **stellar experience participating in the CSL RAI process**. The information material, informational webinars, and access to the program team for Q&A was well received by our faculty..."

RAI 2023 participant
University of Pittsburgh

"It has been a great pleasure to collaborate with our colleagues at CSL. The Research Acceleration Initiative (RAI) is an **outstanding platform that helps bridge the academic world with industry.**"

RAI 2021 awardee
Justus-Liebig-Universität Giessen

"**CSL has proven to be an exceptional collaborator**, fostering a scientifically focused partnership marked by open scientific exchange and generosity. Their extensive research expertise has consistently enriched our collaborative efforts making the interaction with CSL an indispensable asset to our joint projects"

RAI 2021 awardee
Klinikum der Universität München (KUM)

"...the webinar session was very useful because it **clearly indicated which areas CSL was interested in funding**, thereby allowing me to focus my thoughts on them."

RAI 2022 awardee
Nanyang Technological University

"Peerless experience – **timely, transparent, actionable communication.**"

RAI 2023 participant
University of British Columbia

"...the opportunity to address **feedback from CSL and to refine the project was particularly valuable**"

RAI 2023 participant
The University of Adelaide

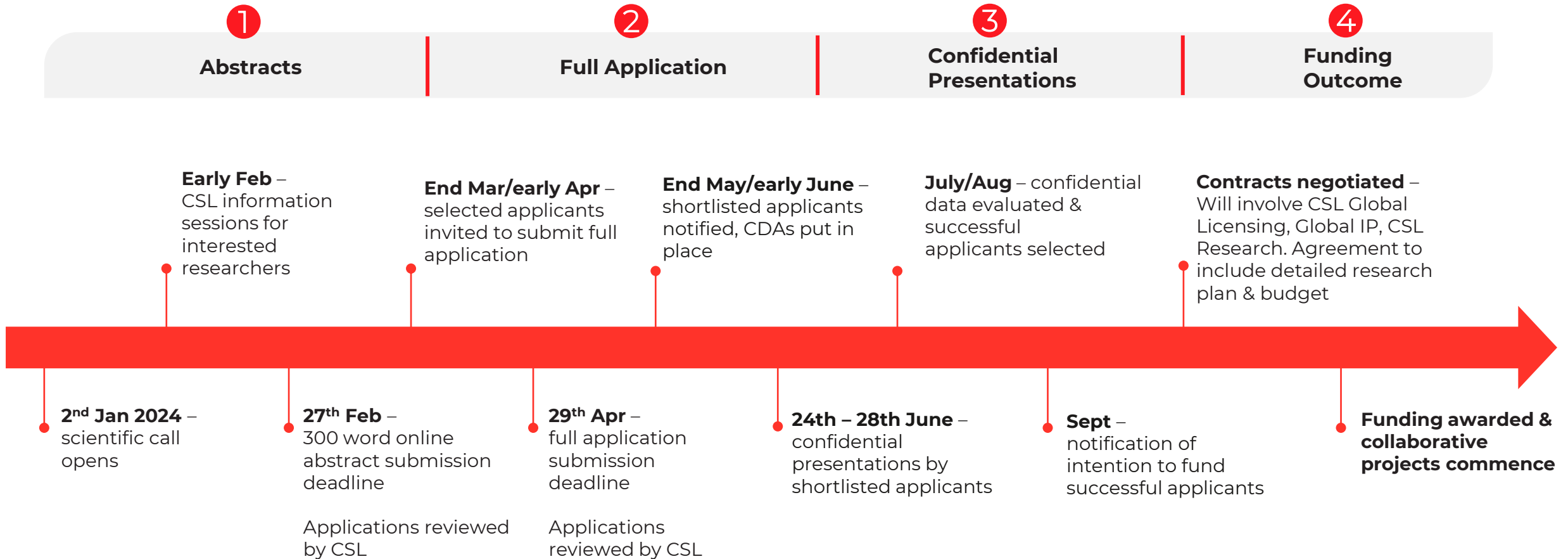
"Well-designed, easy and clear process. **Highly engaged and highly responsive to all questions** and provided well-contemplated and customised feedback."

RAI 2023 participant
University of Toronto

"The types of projects CSL were looking for was made very clear, the process of submitting an **application was easy and did not require excessive time or effort.**"

RAI 2023 participant
Auckland UniServices Ltd

CSL 2024 Research Acceleration Initiative Process



No obligation for registered organizations to submit applications

No limitation on number of abstracts each registered organization can submit

Agreement Guidance



Separate collaboration agreements will be negotiated for each project which reflect the nature of the project, nature of funding and support, and the contributions of both parties



Under these negotiated agreements, CSL will be granted certain rights of interest to the program results for further R&D and/or commercialization



Collaboration agreements will typically include the following terms (although CSL may propose other conditions depending on the nature of the project):

- *Research organization will generally own results arising under the project*
 - CSL would typically own any results which relate to proprietary CSL products or materials contributed to the project or may seek joint-ownership of results to which it has made a significant contribution (e.g. protein or antibody discovery and engineering activities).
 - The RAI is designed to accelerate the translation of novel discoveries made by research scientists – for proposals outside this scope, we may propose that projects be progressed outside the RAI
- *CSL will be granted an exclusive option to negotiate an exclusive, worldwide licence*
- *CSL supports publication of research outcomes*

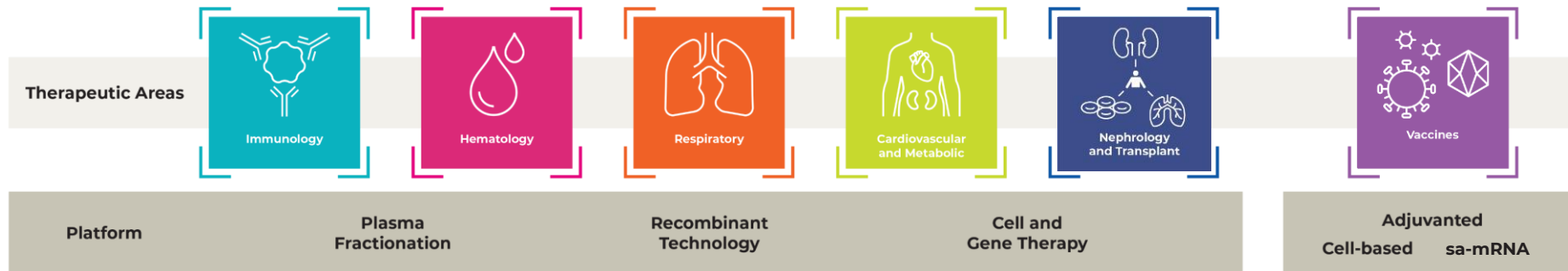


Further details on agreement terms can be provided on request

Eligibility

To be eligible to apply, researchers/clinicians must satisfy the following 2 conditions:

1. Be employed by a research organization registered to participate in the 2024 Research Acceleration Initiative
2. Submit a 300-word online abstract that is aligned with CSL's Therapeutic Areas and scientific Platforms:



Specific indications of focus within each TA are provided on slides 28-35.

Abstract submission via online portal

Step 1/2 - Lead Investigator Information

Applications for the 2024 CSL Research Acceleration Initiative open 2nd January 2024 and close 27th February 2024. Applications received outside these dates (before or after) will not be reviewed.

Fields with * are mandatory

First Name *

Salutation

Last Name *

Job Title *

Organization (start typing to search) *

Organization (if not listed)

Email *

Confirm Email *

Address

City

Zip/Postcode

Country or Territory *

Geographical region *

Are you an existing collaborator, or have you previously collaborated with CSL (including CSL Behring, CSL Seqirus or CSL Vifor)?

Yes No

CONTINUE

Step 2/2 - Describe your opportunity and confirm submission

Please describe and categorize your opportunity.

Fields with * are mandatory

Proposal Title *

Primary Focus Area *

Cardiovascular and Metabolic
 Hematology
 Immunology
 Respiratory
 Nephrology and Transplant
 Vaccines
 Gene Therapy

Plasma Protein Research
 Oral Delivery

Secondary Focus Area (Optional, do not select if not applicable)

Cardiovascular and Metabolic
 Hematology
 Immunology
 Respiratory
 Nephrology and Transplant
 Vaccines
 Gene Therapy

Plasma Protein Research
 Oral Delivery

Disease Areas/Indications *

Modality *

Recombinant protein (including antibodies)	Plasma protein	Gene therapy
Cell therapy	RNA therapeutic (non-vaccine)	Vaccine (including RNA vaccines)
Peptide	Small molecule	Other modality

Opportunity Type *


Novel therapeutic candidate	Novel therapeutic target	Drug target discovery
Vaccine – novel target or candidate	Vaccine – immune mechanisms	RNA platform development
Patient stratification	Biomarker	New use for CSL product or pipeline candidate
Other		

Project Description (max. 300 words) *

Tips for a competitive abstract:
 - Abstracts should focus on a defined project (as opposed to a general overview of the applicant's research interests)
 - If you have multiple projects of potential interest, please submit multiple abstracts
 - Where possible/applicable, please describe the target, disease area, high level mechanism of action (1-2 sentences), and key supporting data (1-2 sentences)
 - An example abstract is as follows: "We have discovered a novel target expressed on X cells. We have generated data in X assay(s) and/or X model(s). We have shown the mechanism of action is mediated via X pathway(s). Inhibition of this target could be used to treat X indication(s). This novel strategy could address an important unmet need for patients and be superior to standard of care and other therapeutics in development for reasons X, X and X."
 * Please do not include any confidential information

I have read the privacy policy and agree with it. [Read more...](#) *

I hereby confirm that my submission does not contain any confidential information. *

I'm not a robot 

BACK SUBMIT

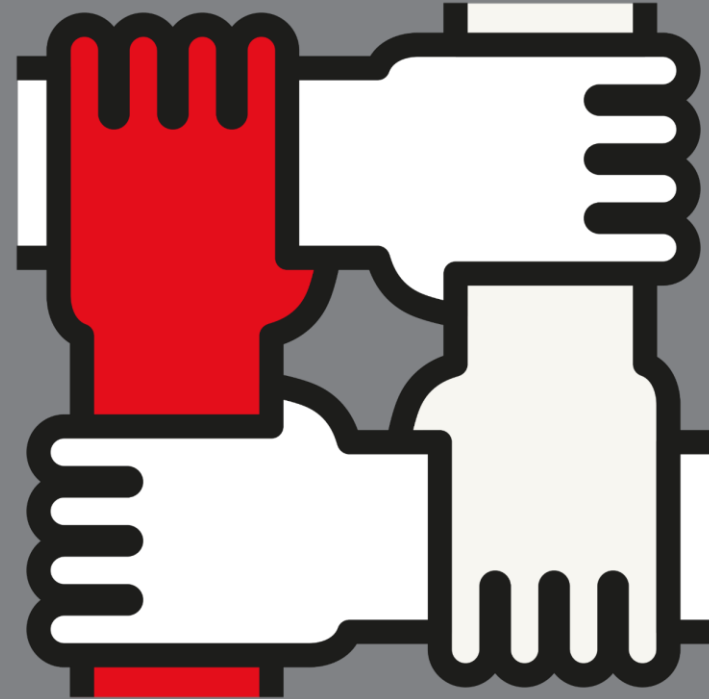
What makes for a competitive proposal?

- ✓ Aligned with our focus areas and modalities (slides 28-35)
- ✓ Project is clearly defined (as opposed to a general overview of the applicant's research interests)
- ✓ Focused on a novel target or therapeutic candidate
- ✓ Clear differentiation of approach from competitors and current standard of care
- ✓ Research team has capacity and expertise to complete the bulk of the experimental work over the course of the program (with CSL guidance and support)
- ✓ If third party IP is required, ensure your research organization has secured all necessary rights to grant CSL an exclusive option to negotiate an exclusive, worldwide licence

Examples of activities funded in previous RAI partnerships

- ✓ Human target validation and translational studies using patient samples
- ✓ Mechanism of action studies for therapeutic candidates
- ✓ Benchmarking to provide proof-of-concept for the differentiation of novel therapeutics to standard-of-care or competing therapeutics in development
- ✓ Target validation using genetic knock-out/knock-in or tool compounds in preclinical disease models
- ✓ Characterization of therapeutic candidates (e.g. affinity, potency, selectivity, and developability)

Benefits of collaborating with CSL



Benefits of CSL's Research Acceleration Initiative



Collaborate
with one of the world's
leading biotech
companies



Publish with CSL
200+ publications
with our collaborators
since 2020



Funding
of up to
\$400,000 USD
over 2 years



Access expertise
CSL scientific champion
assigned to provide you
with industry guidance



Recognition
Awardees may use title
"CSL Research Acceleration
Initiative Fellow"



Accelerate
the translation of
your research into
new therapies

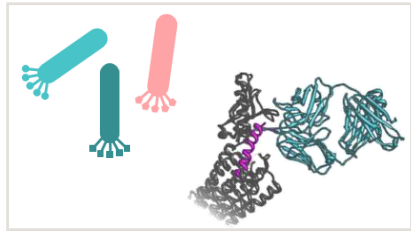


Access global capabilities
in R&D, clinical, intellectual
property, manufacturing
and commercial

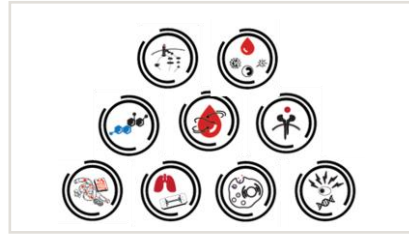


Demonstrate impact
of your research to
funding bodies via
industry collaboration

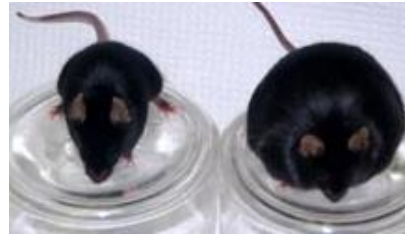
Capabilities from Discovery to Patients



Antibody Discovery and Protein Engineering



In vitro pharmacology



Animal Models of Disease



Toxicology & Product Development



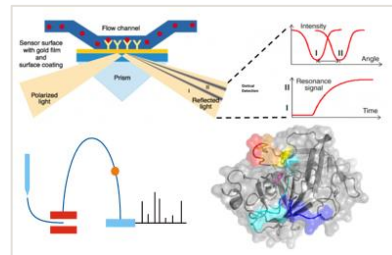
Patients

R&D CAPABILITIES

CLINICAL CAPABILITIES



Protein production and purification



Analytical Biochemistry

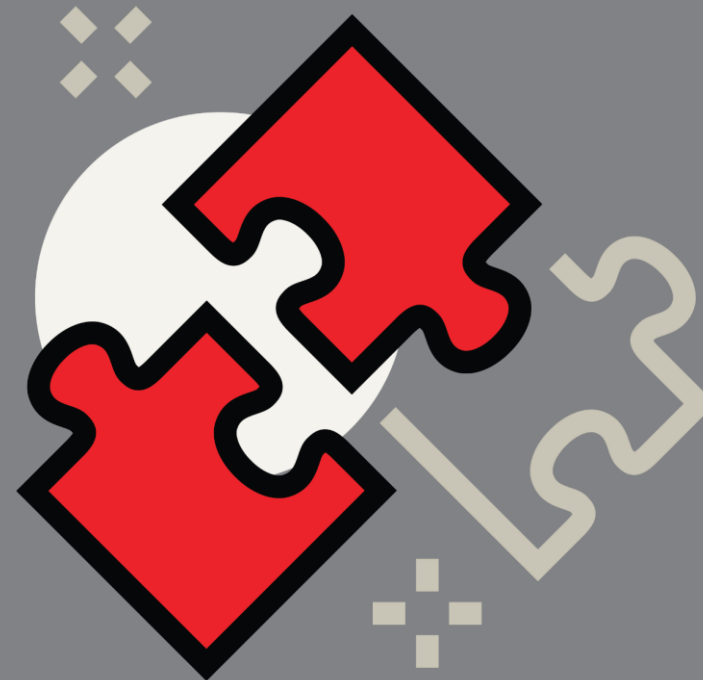


Translational Medicine & Data Science

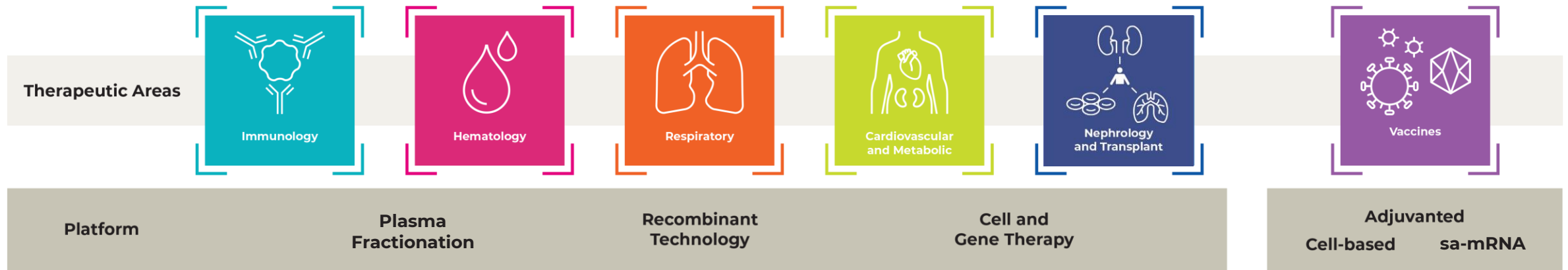


Phase I-III/ Launch Manufacturing

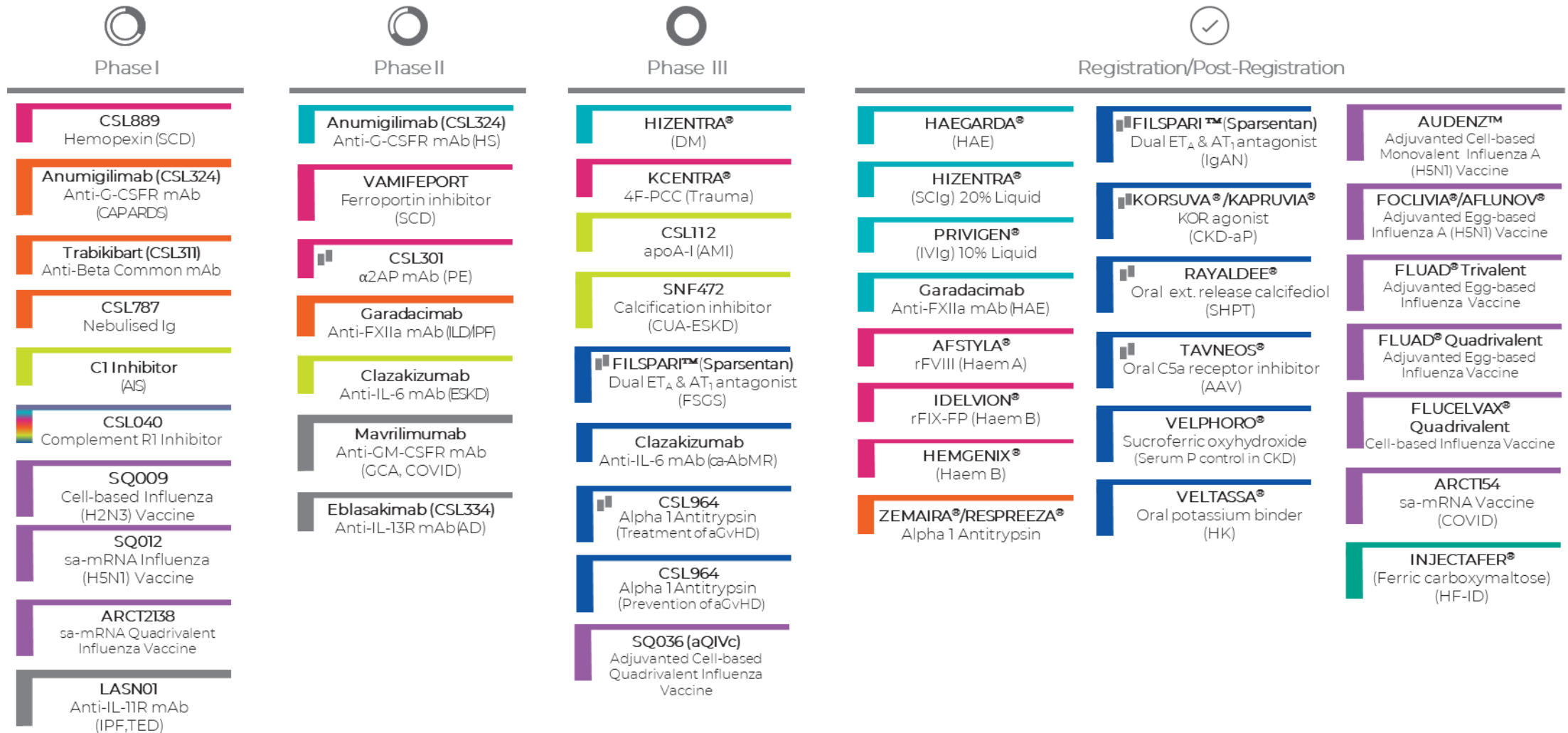
CSL's core Therapeutic Areas



CSL's Core Therapeutic Areas & Platforms



CSL R&D Portfolio – FY24



■ Immunology ■ Haematology ■ Respiratory ■ Cardiovascular & Metabolic ■ Nephrology & Transplant
■ Vaccines ■ CSL Vifor ■ Outlicensed Programs ■ Partnered Projects

Product and pipeline highlights



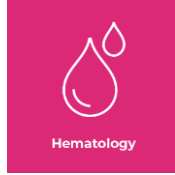
Privigen® (10% intravenous Ig)
Primary immunodeficiencies (PID), Secondary Immune Deficiency (SID)*, Chronic inflammatory demyelinating polyneuropathy (CIDP)

Hizentra® (20% subcutaneous Ig)
PID, CIDP, SID*
Dermatomyositis (DM), Ph III

Haegarda® (C1 Esterase Inhibitor)
Hereditary angioedema

Garadacimab (Anti-FXIIa mAb)
Hereditary angioedema, Ph III

CSL324 (Anti-G-CSFR mAb)
Hidradenitis suppurativa (HS), Ph I



Idelvion® (Recombinant FIX-FP)
Hemophilia B

Hemgenix® (AAV FIX gene therapy)
Hemophilia B

Afstyla® (Recombinant FVIII)
Hemophilia A

Kcentra® (Prothrombin complex concentrate)
Urgent warfarin reversal

Vamifeport (Oral ferroportin inhibitor)
Sickle cell disease, PhIIa

CSL889 (Hemopexin)
Sickle cell disease, Ph I

CSL888 (Haptoglobin)
Sub-arachnoid hemorrhage, preclinical development

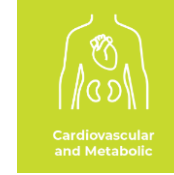


ZEMAIRA®/RESPREEZA®
(Alpha 1 Antitrypsin)

Garadacimab (Anti-FXIIa mAb)
Idiopathic Pulmonary Fibrosis, Ph IIa

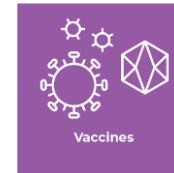
CSL311 (Anti-β-common mAb)
Airways inflammation, Ph I

CSL787 (Nebulised Ig)
Respiratory infections, Ph I



CSL112 (ApoA-1)
Acute coronary syndrome, Ph III

CSL300 (Anti-IL-6 mAb)
End stage kidney disease Ph IIb



FLUAD Quadrivalent
Adjuvanted Influenza Vaccine

FLUCELVAX Quadrivalent
Cell-based Influenza Vaccine

Adjuvanted Cell Culture Influenza Vaccine (aQIVc), Ph II

sa-mRNA Influenza Vaccine, PC

ARCT-154 COVID-19 Vaccine, Ph III



CSL964 (Alpha 1 Antitrypsin)
Graft versus host disease, Ph III

Clazakizumab (Anti-IL-6 mAb)
Antibody mediated rejection, Ph III

CSL040 (Novel Complement Inhibitor), Ph I

*ex-USA

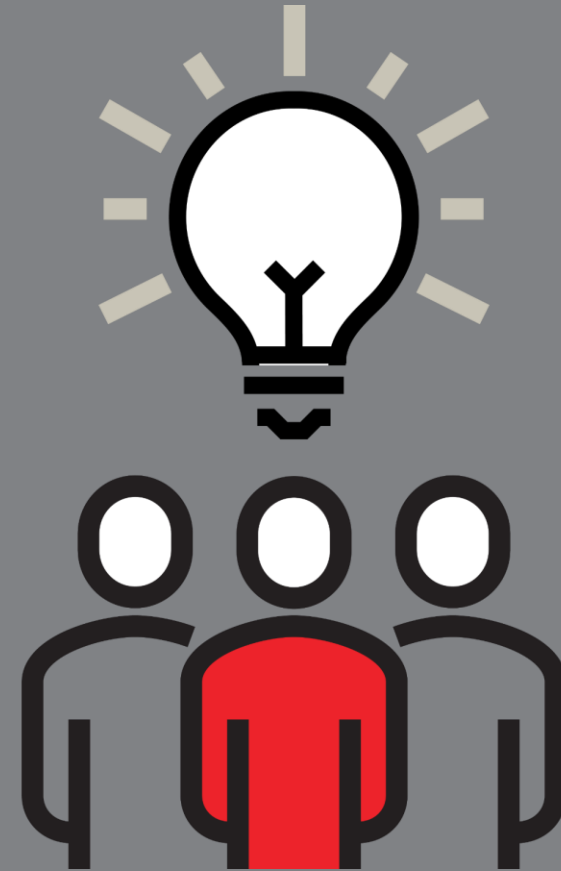
Our full pipeline can be viewed [here](#)

Driven by **Our Promise**

Areas of interest for collaboration

Areas not of interest

- *Oncology (including hematological malignancies)*
- *Medical devices or diagnostics*
- *Small molecule approaches*





Immunology



Core interests for early stage partnering

Novel targets or best-in-class biologic therapeutics addressing:

1. B cell and plasma cell depletion or inhibition
2. T cell modulation, immune checkpoint agonism or co-stimulatory antagonism, Regulatory T cell stimulation or Tolerance
3. Modulation of cytokines, chemokines and immune-super family members (e.g., TNF, IL-1, other) , particularly approaches enabling multi-pathway inhibition
4. Depletion/modulation of innate immune effector cells

Autoimmune diseases:

Inflammatory Idiopathic Myopathies including Dermatomyositis, Primary Sjögren's Syndrome, Small Fiber Neuropathy, ANCA-Associated Vasculitis and Autoimmune Hepatitis

Not of interest:

Target discovery campaigns or platforms, intracellular targets, complement inhibition



Hematology



Core interests for early stage partnering

Acute hemorrhage control and hemorrhagic stroke

1. Novel biologic therapies to treat and prevent acute hemorrhage (e.g. intracerebral hemorrhage (ICH), reversal of anti-coagulation/anti-platelet associated bleeding)
2. Novel biologic targets and therapies for the treatment of secondary brain injury in subarachnoid hemorrhage and ICH
3. Omics approaches for patient stratification and drug discovery

Acute thrombotic conditions (macro- and micro-circulation)

1. Novel biologic therapies for targeted fibrinolysis/thrombolysis in acute thrombosis (ischemic stroke, pulmonary embolism)
2. Novel biologic therapies to treat and prevent microvascular thrombosis and endotheliopathies (e.g. TMAs, APS and DIC).

Benign hematology adjacencies*

1. Novel biologic therapies for the treatment of anemias
2. Novel biologic therapies to treat bone marrow disorders



Respiratory



Core interests for early stage partnering

Idiopathic pulmonary fibrosis (IPF), pulmonary sarcoidosis and progressive pulmonary fibrosis (PPF)

1. Novel biologic therapies or target proposals derived from translational or biobank cohorts
2. Therapies targeted at reversing remodelling of fibrotic lung tissue
3. Multiomics-based approaches to target discovery

Community acquired pneumonia (CAP)-associated complications

(Acute Respiratory Distress Syndrome (ARDS), Sepsis, Acute kidney injury)

1. Novel biologic therapies or target proposals derived from translational or biobank cohorts
2. In Silico approaches for patient stratification to delineate CAP patients at risk for ARDS/Sepsis/AKI



Cardiovascular and Metabolic



Core interests for early stage partnering

Atherosclerotic plaque stabilization in high-risk patient groups

Novel targets or biologic therapies to prevent atherosclerotic plaque rupture/erosion and Major Adverse Cardiovascular Events (MACE)

Rare lipid disorders

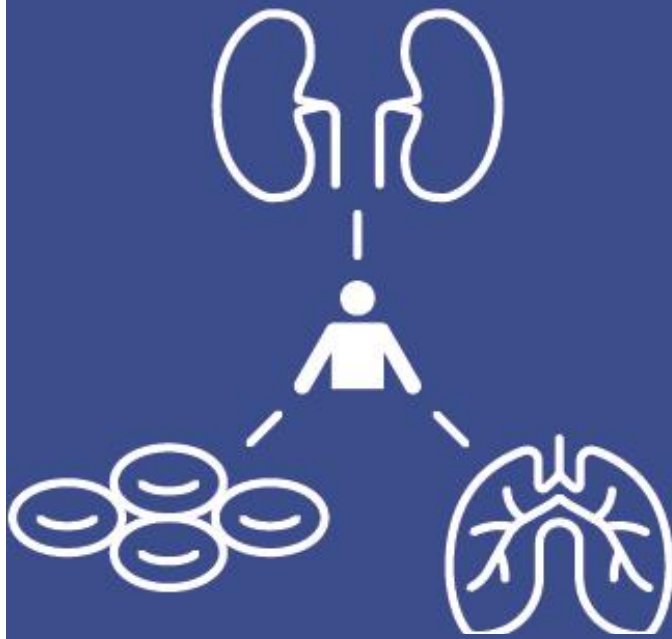
Novel targets or biologic therapies (including gene therapies) for rare /severe lipid disorders e.g. homozygous familial hypercholesterolemia, hypertriglyceridemia

Myocarditis

Novel targets or biologic therapies for immune checkpoint inhibitor myocarditis
Biomarker approaches for patient stratification

Inflammatory cardiomyopathies

Novel targets or biologic therapies for inflammatory cardiomyopathies
Biomarker approaches for patient stratification



Nephrology and Transplant



Core interests for early stage partnering

Acute and chronic solid organ transplant rejection (kidney/lung) therapies

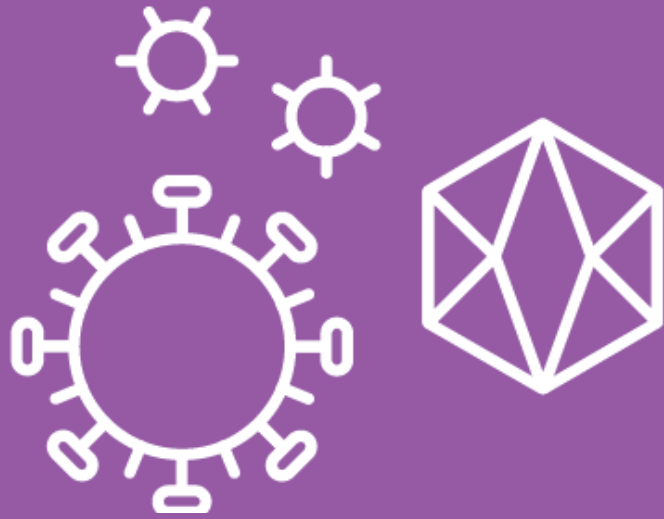
Novel biologic therapies or targets to prevent or treat acute and chronic solid organ transplant rejection of the kidney and lung

Chronic graft versus host disease (GvHD)

Novel biologic therapies for the treatment and prevention of chronic GvHD

Tolerance for organ transplant rejection

Novel biologic therapies for the induction of tolerance to prevent or treat organ transplant rejection



Vaccines



Core interests for early stage partnering

Respiratory vaccines

1. New antigenic targets (epitopes or combinations)
2. Methods (e.g. AI/machine learning) to predict respiratory viral evolution/pathogenicity to inform vaccine development

New vaccine targets

Development of novel targets/approaches for any disease

RNA delivery and therapeutics

1. RNA delivery, enhanced stability, route of administration and/or expression strategies
2. mRNA-encoded protein therapies encompassing cellular targeting technologies

Immune mechanisms

Understanding innate and adaptive responses to vaccines



Cell & Gene Therapy



Core interests for early stage partnering

Gene editing / genomics

1. Improve insertional editing efficiencies *in vivo*
2. Genetic elements enhancing regulation of cells of the immune system (e.g. promoters and enhancers)

In vivo Delivery

1. Delivering nucleic acid templates for insertional gene editing
2. Targeting moiety for HSCs

GT safety

Technologies that minimize SAEs from insertional gene editing

Areas not of interest

- Oncology (including hematological malignancies)
- *Ex vivo* cell therapy



Plasma Protein Research



Core interests for early stage partnering

Novel plasma therapeutic candidates

1. Seeking plasma candidates aligned with CSL's therapeutic areas
2. CSL can provide native human plasma proteins ($\geq \mu\text{g/L}$ plasma concentration) for preclinical proof-of-concept studies

Novel association of plasma protein function with disease

1. Based on healthy and patient clinical data sets aligned with CSL's therapeutic areas, or
2. Access to patient data sets with corresponding clinical data to enable association studies to be performed

Novel methods for plasma protein purification

Protein purification systems capable of targeted purification from plasma with high purity at research scale (methods translatable to manufacturing scale will be prioritized)

Checklist for 2024 Research Acceleration Initiative

- ✓ Ensure your abstract is aligned with CSL's 2024 RAI focus areas (refer to flyer or slides 28-35)
- ✓ Connect with your Tech Transfer / Research Grants / Commercialization Office representative to discuss your abstract and to obtain the online abstract submission link
- ✓ Familiarise yourself with the abstract submission T&Cs (refer to last slide)
- ✓ Ensure no confidential information is disclosed in your abstract
- ✓ Submit your non-confidential 300 word abstract via the online portal by **27th February 2024**
- ✓ CSL will provide feedback on the outcome of your abstract by end March/early April 2024

SEVEN NEW CSL RESEARCH

7

ACCELERATION INITIATIVE AWARDEES ANNOUNCED

Dr Laurent Martinez

Institute of Cardiovascular and Metabolic Diseases (I2MC), IHU HealthAge, INSERM / University of Toulouse, France

Prof. Delphine Borgel

INSERM - APHP - Université Paris SACLAY, France

Prof. Denis Vivien

INSERM / Caen Normandie University Hospital, France

Research Director Benoit Salomon

INSERM / University of Toulouse, France

Assoc Prof. Tan Meng How

Nanyang Technological University, Singapore

Prof. Elisa Laurenti

University of Cambridge, United Kingdom

Prof. Leon Schulte

Philipps-Universität Marburg, Germany



Driven by **Our Promise**

CSL



Questions



THANK YOU

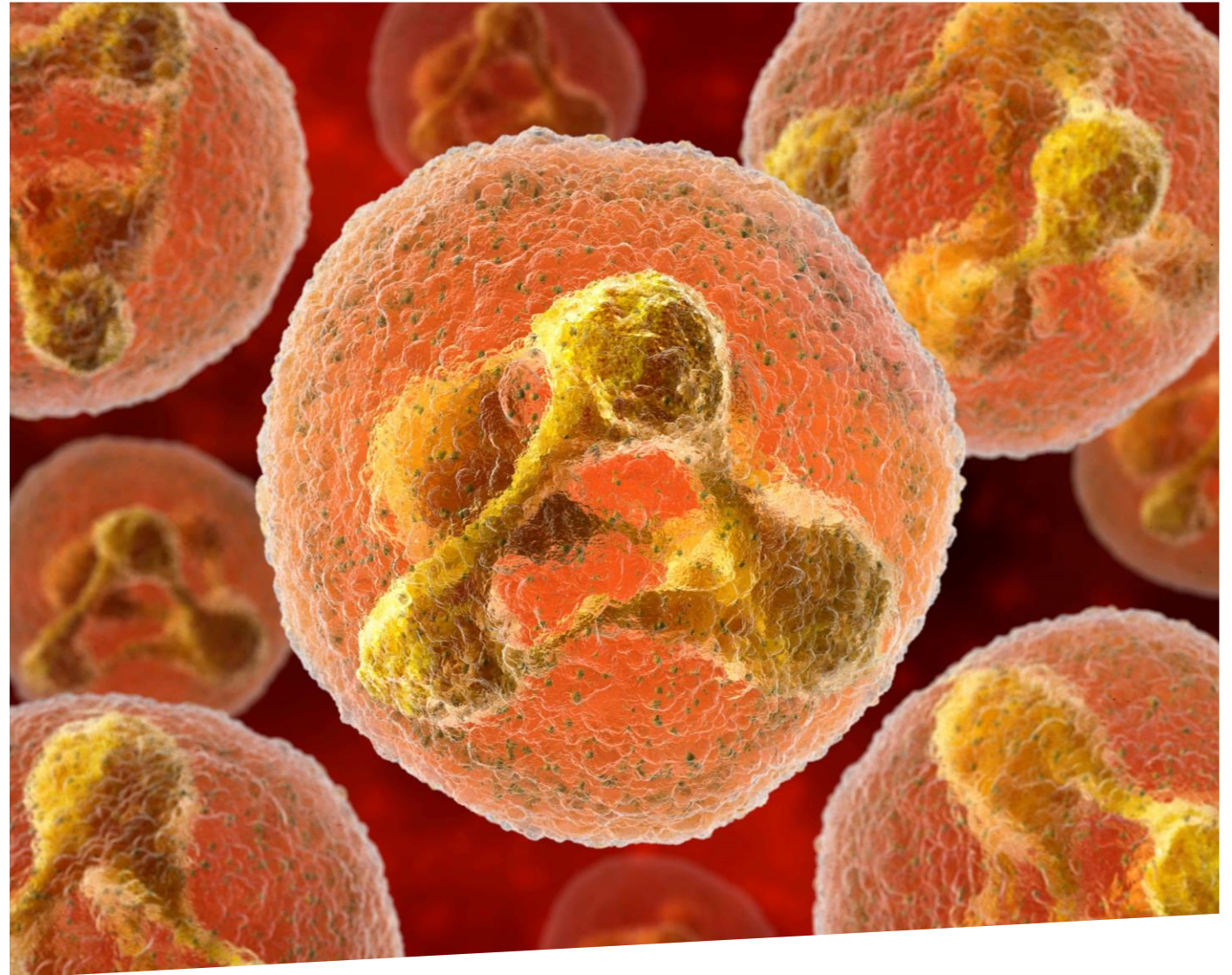
Dr Marthe D'Ombra
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Global Research Innovation

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Senior Manager, *Research
Innovation*

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Terms and Conditions for Research Acceleration Initiative Portal ("RAI Portal")

1. This RAI Portal is an online portal operated by CSL Innovation Pty Ltd ("CSL") for the purpose of allowing individuals to submit scientific proposals for consideration by CSL for its Research Acceleration Initiative program. By using this website and the RAI Portal, and by providing your submission and personal information to CSL, you are agreeing to abide by these terms and conditions.
2. You acknowledge and agree that CSL has no obligations of confidentiality or non-use in relation to the submission provided. You warrant that your submission does not contain confidential information of any kind. Further, you acknowledge that notwithstanding the existence of any confidentiality agreements previously entered into between you and CSL, the terms of such agreements will not apply with respect to any information submitted by you through the RAI Portal.
3. You further represent and warrant that:
 - a. you have the right and authorisation (including where relevant after consultation with all relevant commercialisation or technology transfer offices) to submit an application to the RAI Portal and to accept the terms and conditions set out herein;
 - b. you are an employee or are otherwise affiliated with a registered organisation authorised by CSL to submit an application to the RAI Portal; and
 - c. to the best of your knowledge and without making any further enquiries, the information provided in your submission (and CSL's use of that information in connection with the Research Acceleration Initiative program) shall not infringe on the intellectual property rights of any third party, including your current or former employer, university, public research institute or other registered organisation.
4. CSL may disclose personal information collected in connection with your use of this website or the RAI Portal to your employer, university, public research institute or other registered organisation (if applicable) as at the time your application was submitted, solely for the purpose of reviewing and determining your application. CSL will ensure that any personal information collected, used or disclosed in connection with your use of this website or the RAI Portal is handled in accordance with all relevant privacy legislation and with CSL's privacy policy, a copy of which is available at <https://www.csl.com/privacy-policy>.
5. CSL is under no obligation to respond to any individual application submitted to the RAI Portal, and may in its sole discretion choose not to progress an application further for any reason without any further communication with you.