



CSL 2022 Research Acceleration Initiative

Information Session

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Outline



Overview of CSL



Benefits of collaborating
with CSL



CSL's core Therapeutic
Areas (TAs)



CSL Research Acceleration
Initiative

*Application & selection process,
timeline, agreement guidance,
eligibility, past recipients*



CSL's areas of focus for the
2022 Research
Acceleration Initiative



Questions

CSL at a Glance

35+ 

Countries of operations
around the world

US\$10.3 

Billion in annual revenue

US\$4.1 

Billion in R&D investments in the last
5 years to advance product pipeline

25,000+ 

Employees around the world

1700+ 

R&D employees

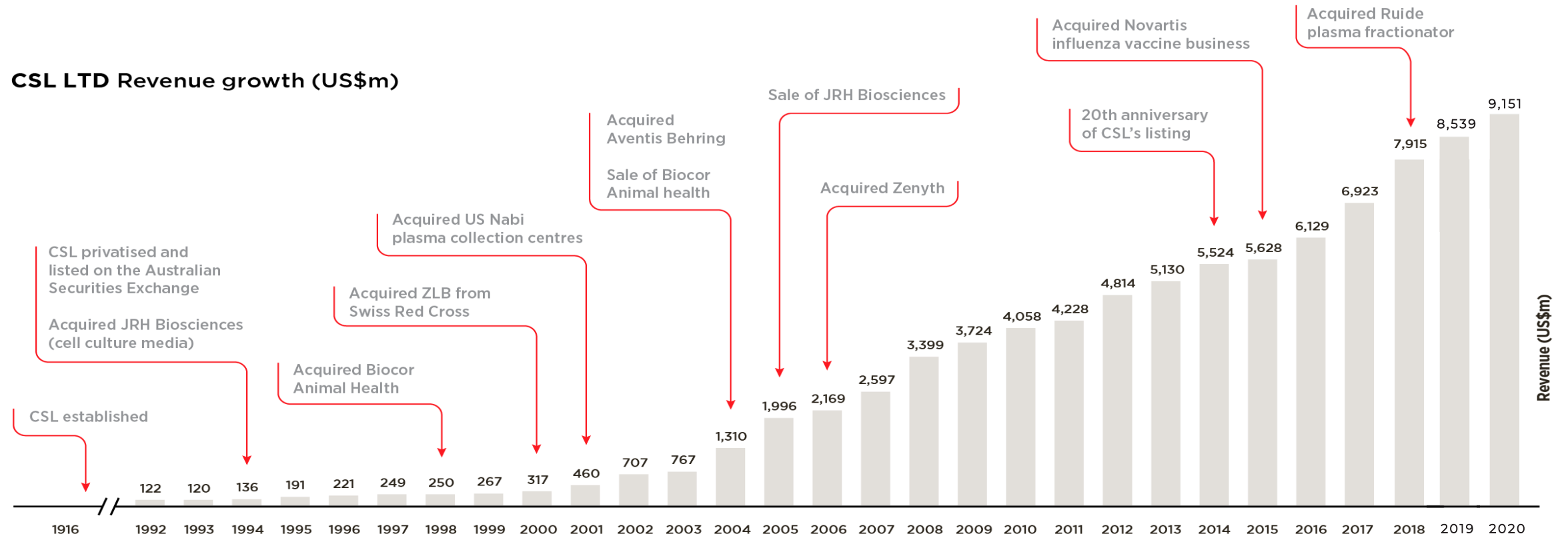
300+ 

Plasma collection centres across
China, Europe and North America

Top 20 Pharma Companies of 2021

Rank	Company	Ticker Symbol	No. of Employees	Market Cap (US\$ Billion)
1	Johnson & Johnson	JNJ (NYSE)	134,500	433.8
2	F. Hoffmann-La Roche Ltd	ROG (SWF)	101,465	329.8
3	Novartis AG	NOVN (SWF)	109,000	226.0
4	Eli Lilly and Co	LLY (NYSE)	35,000	220.1
5	Pfizer Inc	PFE (NYSE)	78,500	219.2
6	AbbVie Inc	ABBV (NYSE)	48,000	198.9
7	Merck & Co Inc	MRK (NYSE)	74,000	196.9
8	AstraZeneca Plc	AZN (LON)	76,100	157.7
9	Bristol-Myers Squibb Co	BMJ (NYSE)	30,250	149.2
10	Novo Nordisk AS	NOVO B (CPH)	45,971	148.5
11	Amgen Inc	AMGN (NASD)	24,300	140.0
12	Sanofi	SAN (EPA)	99,412	132.1
13	GlaxoSmithKline Plc	GSK (LON)	94,066	98.7
14	CSL Ltd	CSL (ASX)	25,000	97.3 B
15	Moderna Inc	MRNA (NASD)	1,300	94.3
16	Gilead Sciences Inc	GILD (NASD)	13,600	86.3
17	Jiangsu Hengrui Medicine Co Ltd	600276 (SHSE)	28,903	67.3
18	Bayer AG	BAYN (ETR)	99,439	59.6
19	Regeneron Pharmaceuticals Inc	REGN (NASD)	9,123	59.5
20	BioNTech SE	BNTX (NASD)	2,500	54.1

More than a century ago, CSL made a promise to protect the health of those stricken with a range of serious medical conditions. Today, that promise has never been stronger.



Global Research & Development footprint



Manufacturing sites



**Marburg,
Germany**

2.900
employees

Core products:

- Coagulation factors
- Critical care



**Bern,
Switzerland**

1.700+
employees

Core products:

- Immunoglobulins
- Albumin



**Lengnau,
Switzerland**

300+
employees

Core products:

- Recombinant coagulation factors



**Kankakee,
USA**

1.600
employees

Core products:

- Alpha1-Proteinase-Inhibitor
- Albumin



**Melbourne,
Australia**

1.100+
employees

Core products:

- Coagulation factors
- Critical care
- Immunoglobulins



Wuhan, China

300+
employees

Core products:

- Immunoglobulins
- Albumin
- Hyperimmunes

CSL Research



CSL Research Melbourne
Bio21 Institute, University of Melbourne
~4,100m² lab / office space



CSL Research Bern
Swiss Inst. for Translational & Entrepreneurial
Medicine, University of Bern
~2,000m² lab / office space

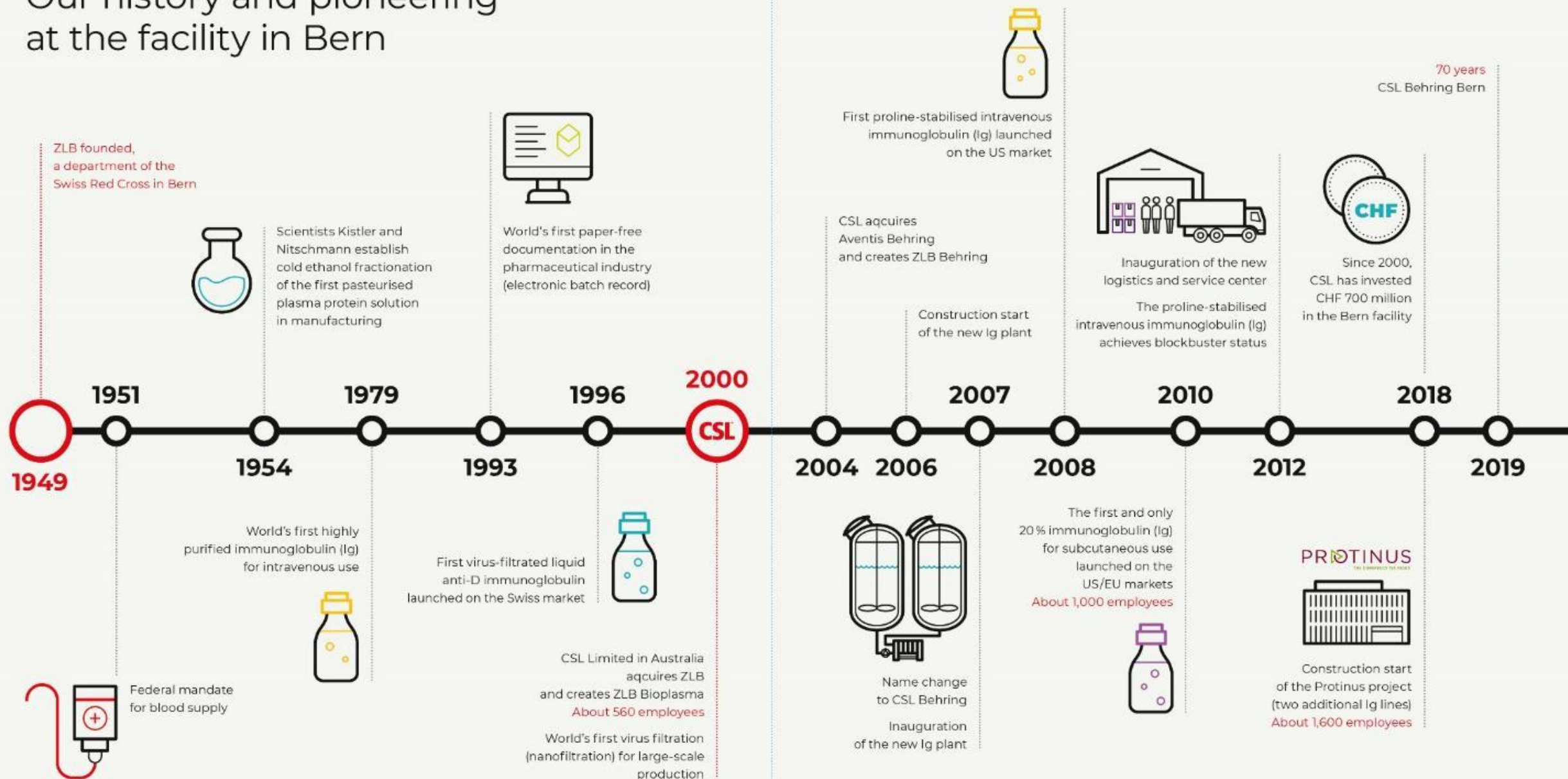


CSL Research Marburg
~ 20,000 m² lab / office space

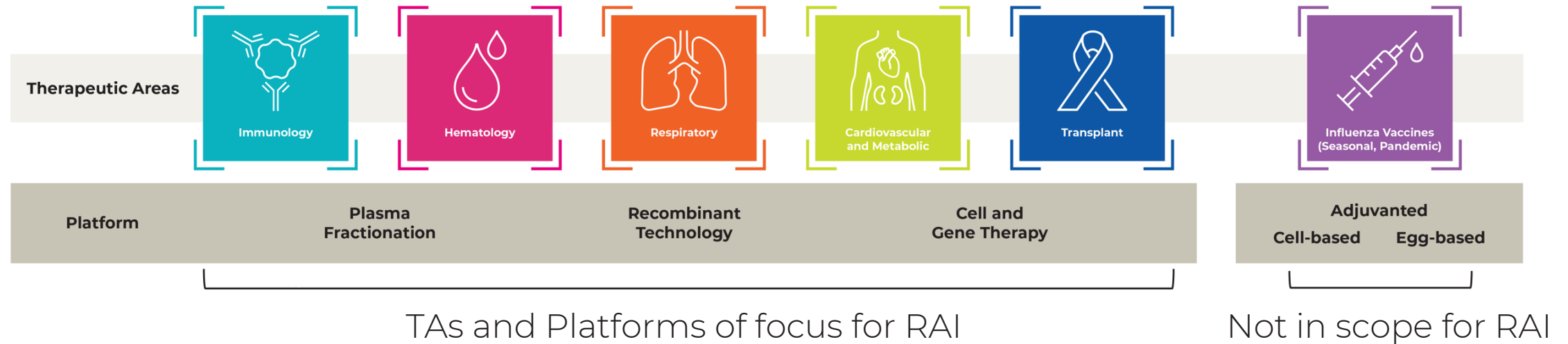


CSL Research US
Pasadena, KOP
~480m² lab space

Our history and pioneering at the facility in Bern



CSL's Core Therapeutic Areas (TAs) & Platforms





Immunology



Key Products & Pipeline

Privigen® (10% intravenous Ig)
Primary immunodeficiencies (PID),
Chronic inflammatory demyelinating
polyneuropathy (CIDP)

Hizentra® (20% subcutaneous Ig)
PID, CIDP
Dermatomyositis (DM), Ph III
Systemic sclerosis (SSc), Ph II

Haegarda® (C1 Esterase Inhibitor)
Hereditary angioedema

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

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

CSL730 (Recombinant Trivalent
Human IgG1 Fc Multimer), Ph I

Gene Therapy Treatments

PID, Research



2022 RAI Focus Areas

Immune deficiencies
(PID gene therapy and targets)

Autoimmune diseases (AIDs)
(e.g. primary Sjögren's syndrome;
SSc; idiopathic myositis incl.
DM, polymyositis and others;
autoimmune blistering diseases)

Therapeutic strategies for AIDs

- Novel immunomodulatory strategies targeting cytokines, chemokines, modulatory proteins and TNF-family members
- B cell depletion / regulation strategies

**Alternatives to plasma-derived Ig
/ Recombinant IVIg**



Hematology



Key Products & Pipeline

Idelvion® (Recombinant FIX-FP)
Hemophilia B

Afstyla® (Recombinant FVIII)
Hemophilia A

Kcentra® (Prothrombin complex concentrate)
Urgent warfarin reversal

EntranaDez (AAV FIX gene therapy)
Hemophilia B, Ph III

CSL889 (Hemopexin)
Sickle cell disease, Ph I

CSL888 (Haptoglobin)
Sub-arachnoid hemorrhage, PC



2022 RAI Focus Areas

Hemorrhagic stroke
Novel biologic targets/
therapeutics or strategies to
understand pathomechanisms

Acute thrombosis (pulmonary embolism, acute ischemic stroke)
Novel therapies / approaches for
targeted fibrinolysis / thrombolysis
with increased efficacy and safety

Sickle cell disease
Prophylactic therapies to reduce
vaso-occlusive crises and chronic
vasculopathy

Biomarker / Omics approaches for
patient stratification and drug
discovery for above indications



Respiratory



Key Products & Pipeline

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

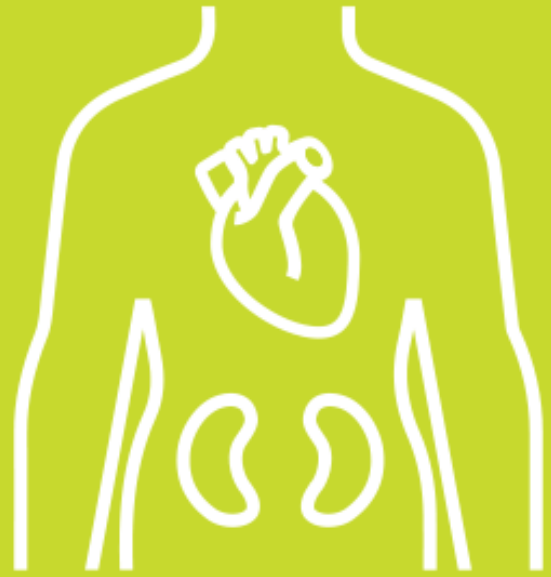


2022 RAI Focus Areas

Idiopathic pulmonary fibrosis (IPF) and other chronic, progressive fibrosing interstitial lung diseases (ILD)

Community acquired pneumonia (CAP)-associated complications
(acute respiratory distress syndrome (ARDS), sepsis, acute kidney injury)

Therapeutic biologics and Omics approaches for patient stratification and drug discovery for above indications



Cardiovascular and Metabolic



Key Products & Pipeline

CSL112 (ApoA-1)

Acute coronary syndrome, Ph III

CSL346 (Anti-VEGFB mAb)

Diabetic kidney disease, Ph II



2022 RAI Focus Areas

**Myocarditis / Inflammatory
cardiomyopathy**

Rare lipid disorders

(e.g. familial hypercholesterolemia,
familial chylomicronemia)

Severe forms of atherosclerosis



Transplant



Key Products & Pipeline

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

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

CSL040 (Novel Complement
Inhibitor), PC



2022 RAI Focus Areas

Chronic lung allograft dysfunction (CLAD)

Novel biologic targets / therapeutics for
prevention of CLAD

Tolerance

Novel biologic targets / therapeutics for
immunomodulation and tolerance
induction in SOT and HSCT incl.
strategies to expand Tregs *in vivo*

Hematopoietic stem cell transplants (HSCT)

Novel biologic targets / therapeutics for
improving efficacy / safety

Chronic GvHD

Novel biologic targets / therapeutics for
treatment and prevention

Cardiovascular allograft vasculopathy

Novel biologic targets / therapeutics for
treatment and prevention





Platforms

2022 RAI Focus Areas

Gene Therapy

Non-viral *in vivo* delivery of gene editing RNPs

Lipid nanoparticle (LNP) or polymer-based

Modulation of transgene expression *in vivo*

Technologies that may be able to tune the expression of a transgene delivered by lentiviral gene therapy

Universal HDR enhancers to improve gene editing efficiency

Methods or molecules that may enhance gene insertion

Improved HSC transduction methods

Chemically or physically to enhance transduction of lentiviral vectors on HSCs

LV production improvements

Yield and/or quality of lentivirus production

Oral delivery

Technologies enabling oral delivery of biologics

(e.g. antibodies and other protein therapeutics)

Areas not of interest

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

Capabilities from Discovery to Patients



Target Discovery



Translational Medicine
& Data Science



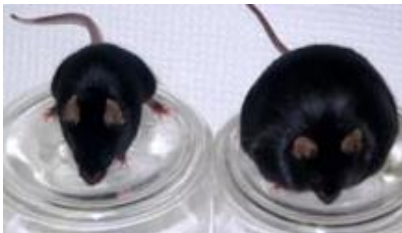
Phase I / II
Manufacturing



Patients

THERAPEUTIC PLATFORMS

CLINICAL STUDIES



Animal Models of Disease



Toxicology & Product
Development



Phase III / Launch
Manufacturing

Benefits of collaborating with CSL



Global
capabilities on
your doorstep



Work with one of
the world's leading
biotech companies



Funding for
successful
proposals



Access to commercial,
R&D, clinical, intellectual
property, marketing and
manufacturing expertise



Accelerate
translation of your
research to deliver
new **therapies**



>20 new Research
Acceleration Initiative
partnerships
established since 2019



>150 active
Research
collaborations



225 scientific papers
published with our
collaborators since
2015

The background of the slide is a high-magnification microscopic image of cells. The cells are spherical and have a textured, orange-red surface. Some cells show internal structures, including yellowish, irregularly shaped regions that could be nuclei or other organelles. The cells are scattered across the frame, with some in sharp focus and others blurred in the background.

Research Acceleration Initiative

CSL's Research Acceleration Initiative

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

Focus on early stage projects in specific areas aligned with CSL's Therapeutic Areas

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

CSL has a strong interest in supporting local medical research efforts and strengthening POC capability in the countries in which we work

- ✓ Successful applicants receive up to CHF 180k p.a. for up to 2 years
- ✓ CSL scientific champions assigned to each project to provide expert, industry guidance



CSL Research Acceleration Initiative

Seeking Expressions of Interest from Research Organisations

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 organisations. 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 / Commercialisation representatives across global research organisations that wish to participate in the 2022 CSL Research Acceleration Initiative.

The 2022 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**:



WHY COLLABORATE WITH CSL?



Global capabilities on your doorstep.



Work with one of the world's leading biotech companies.



Funding for successful proposals.



Access to commercial R&D, clinical, intellectual property, marketing and manufacturing expertise.




Accelerate translation of your research to deliver new therapies to patients.

Abstract submission via online portal

Please contact your TTO / BD / Commercialisation representative listed on the promotional flyer for submission link. Abstract submissions close 28th Feb 2022.

Step 1/2 - Lead Investigator Information


 Fields with * are mandatory

First Name *	Salutation
<input type="text"/>	<input type="text"/>
Last Name *	Job Title *
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Organization *	Phone
<input type="text"/>	<input type="text"/>
Email *	Confirm Email *
<input type="text"/>	<input type="text"/>
Address	
<input type="text"/>	
City	Zip/Postcode
<input type="text"/>	<input type="text"/>
Country *	
<input type="text"/>	

CONTINUE

Step 2/2 - Describe your opportunity and confirm submission

Please describe and categorize your opportunity.

 Fields with * are mandatory

Proposal Title *

Therapeutic Area *

Cardiovascular & Metabolic	Hematology	Immunology
Respiratory	Transplant	
Not specific to a Therapeutic Area (e.g. platform technology)		

Indications *

Modality *

Plasma	Recombinant (incl. antibodies)	Gene therapy
Cell therapy	Peptide	Extracellular vesicles
Oligonucleotide (siRNA, asRNA, ncRNA)	Small molecule	Other modality


Project Description (max. 300 words) *

Example of what to include in Project Description: "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."

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

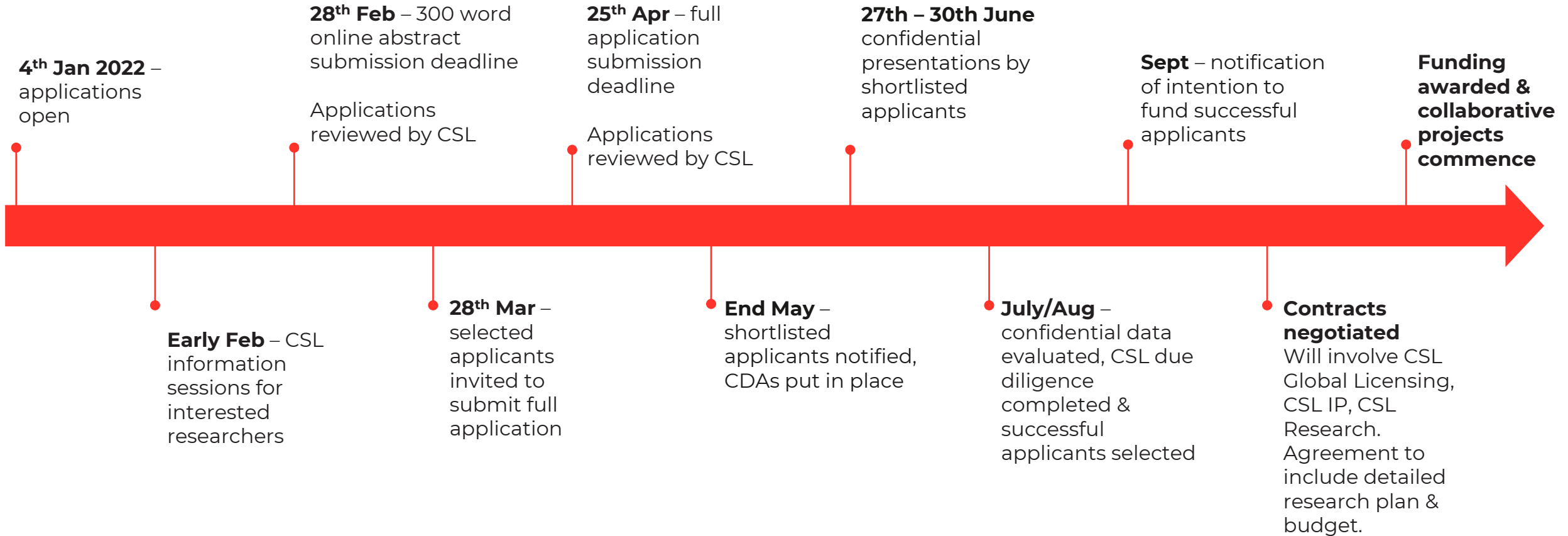
☐ I hereby confirm that my submission does not contain any confidential information. *

☐ I'm not a robot


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CSL 2022 Research Acceleration Initiative Process



No obligation for registered organisations to submit applications

No limitation on number of abstracts registered organisations 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 commercialisation



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

- *Research organisation will own results arising under the project [NOTE: CSL would typically own any results which relate to proprietary CSL products if they are contributed to the project]*
- *CSL will be granted an exclusive option to negotiate an exclusive, worldwide licence*
- *CSL supports publication of research outcomes*

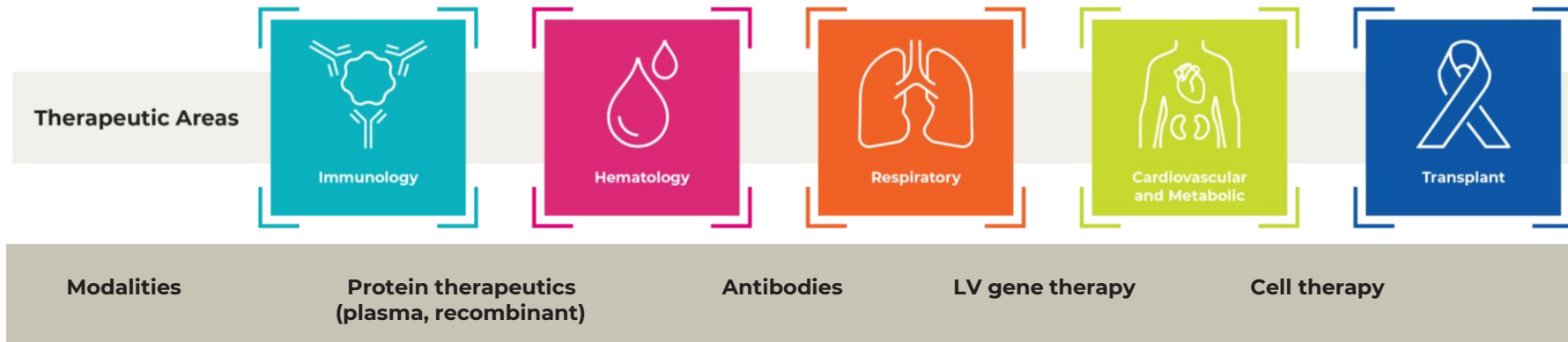


Further details on agreement terms can be provided on request

Eligibility

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

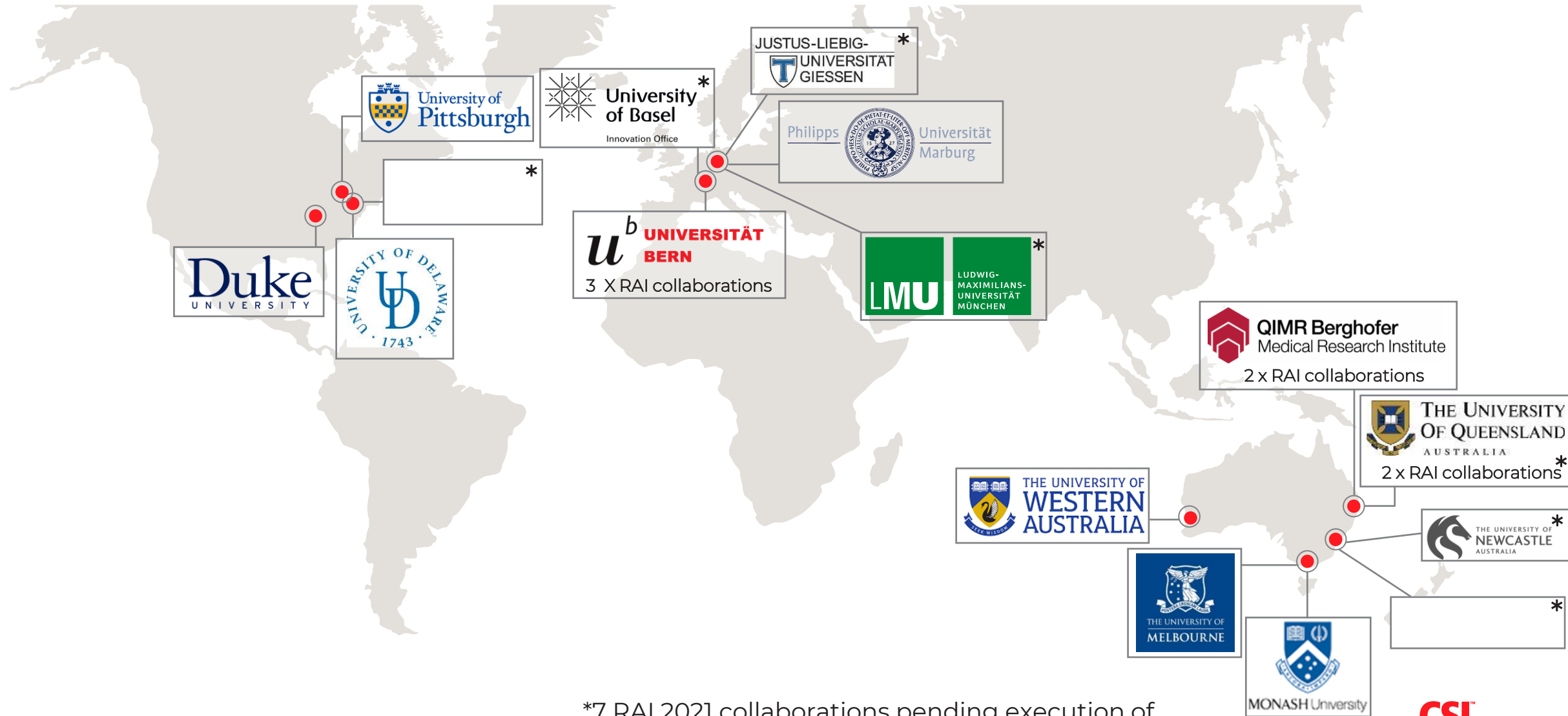
1. Be employed by a research organisation registered to participate in the 2022 Research Acceleration Initiative
2. Submit a 300 word online abstract that aligns with a CSL Therapeutic Area, a Focus Area (slides 7-12), and that is amenable to or includes a Modality listed below:



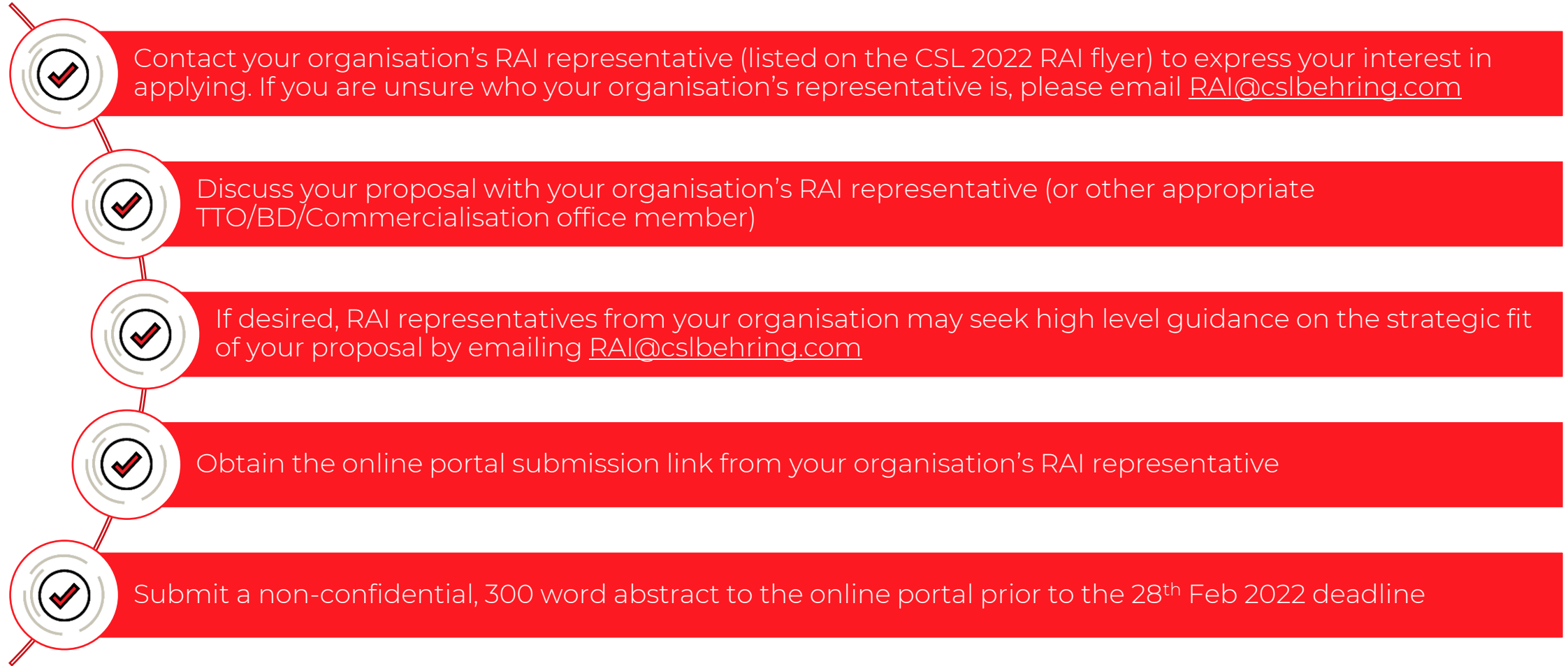
Specific Focus Areas provided on slides 7-12 & promotional flyer

CSL is also interested in new uses for our existing products. If you have a proposal in this area, please e-mail RAI@csl.com.au to discuss

20 new collaborations funded under CSL's Research Acceleration Initiative since 2019*



How to apply for CSL's 2022 RAI



THANK YOU & QUESTIONS

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csl.com/csl-rai

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.
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.
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.