CSL: Core Interests & Collaboration

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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
Our Locations
## Top 25 Biotech Companies of 2022

<table>
<thead>
<tr>
<th>Rank</th>
<th>Company</th>
<th>Ticker Symbol</th>
<th>Market Cap (US$ Billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Novo Nordisk</td>
<td>NOVO-B (CPH)</td>
<td>236.0</td>
</tr>
<tr>
<td>2</td>
<td>Thermo Fisher Scientific</td>
<td>TMO (NASD)</td>
<td>213.4</td>
</tr>
<tr>
<td>3</td>
<td>Amgen</td>
<td>AMGN (NASD)</td>
<td>130.8</td>
</tr>
<tr>
<td>4</td>
<td><strong>CSL Ltd</strong></td>
<td><strong>CSL (ASX)</strong></td>
<td><strong>92.2 B</strong></td>
</tr>
<tr>
<td>5</td>
<td>Gilead Sciences Inc</td>
<td>GILD (NASD)</td>
<td>77.6</td>
</tr>
<tr>
<td>6</td>
<td>Regeneron Pharmaceuticals Inc</td>
<td>REGN (NASD)</td>
<td>67.4</td>
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<tr>
<td>7</td>
<td>Vertex Pharmaceuticals</td>
<td>VRTX (NASD)</td>
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<tr>
<td>8</td>
<td>Moderna</td>
<td>MRNA (NASD)</td>
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<tr>
<td>9</td>
<td>Chugai Pharmaceutical</td>
<td>4519 (JPX)</td>
<td>52.6</td>
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<tr>
<td>10</td>
<td>Illumina</td>
<td>ILMN (NASD)</td>
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<tr>
<td>11</td>
<td>Lonza</td>
<td>LONN (SWX)</td>
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<tr>
<td>12</td>
<td>WuXi AppTec</td>
<td>603259 (SHSE)</td>
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<tr>
<td>13</td>
<td>Samsung Biologics</td>
<td>207940 (KRX)</td>
<td>42.2</td>
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<tr>
<td>14</td>
<td>Agilent Technologies</td>
<td>A (NYSE)</td>
<td>40.3</td>
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<tr>
<td>15</td>
<td>Jiangsu Hengrui Medicine Co Ltd</td>
<td>600276 (SHSE)</td>
<td>40.1</td>
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<tr>
<td>16</td>
<td>BioNTech SE</td>
<td>BNTX (NASD)</td>
<td>33.4</td>
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<tr>
<td>17</td>
<td>WuXi Biologics</td>
<td>2269 (HKG)</td>
<td>33.3</td>
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<td>18</td>
<td>Biogen</td>
<td>BIIB (NASD)</td>
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<tr>
<td>19</td>
<td>Sun Pharmaceutical Industries</td>
<td>SUNPHARMA (NSE)</td>
<td>26.1</td>
</tr>
<tr>
<td>20</td>
<td>Seagan</td>
<td>SGEN (NASD)</td>
<td>23.9</td>
</tr>
</tbody>
</table>

CSL’s Core Therapeutic Areas (TAs) & Platforms
**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

**Core Interests**

- **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**
**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

**Core Interests**

**Hemorrhagic stroke**
- Novel biologic targets/therapeutics or strategies to understand pathomechanisms
- Biomarker/Omics approaches for patient stratification and drug discovery

**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
**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

**Core Interests**

- **Asthma**
  - (severe, uncontrolled)
- **Chronic obstructive pulmonary disease**
  - (exacerbations)
- **Non-cystic fibrosis bronchiectasis**
- **Interstitial lung diseases**
  - (progressive fibrosing)
- **Community acquired pneumonia (CAP)-associated complications**
  - (acute respiratory distress syndrome, sepsis, acute kidney injury)
**Key Products & Pipeline**

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

**CSL346** (Anti-VEGFB mAb)
Diabetic kidney disease, Ph II

**Core Interests**

Myocarditis

Rare lipid disorders
(e.g. familial hypercholesterolemia, familial chylomicronemia)

Severe forms of atherosclerosis
(role of inflammation)
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

Core Interests

**Chronic lung allograft dysfunction**
(incl. prevention, ab-mediated rejection, biomarkers, animal models)

**Ischemia reperfusion injury**
(prevention)

**Tolerance**
(immunomodulation / tolerance for SOT and HSCT)

**Hematopoietic stem cell transplants**
(improving efficacy / safety)

**Acute and Chronic GvHD**
(treatment and prevention)

**Cardiovascular allograft vasculopathy**
(treatment and animal models)
CSL’s Areas of Interest for Collaborations

- Non-viral in vivo delivery of RNPs
- Modulation of transgene expression in vivo
- LV production yield and quality
- Oral delivery of biologics
- Protein purification technologies
- Bioprocess improvements
- Antibodies
- Protein therapeutics
- LV gene therapies
- Cell therapies
Capabilities from Discovery to Patients

TARGET DISCOVERY

- Target Discovery
- Translational Medicine & Data Science

CLINICAL STUDIES

- Phase I / II Manufacturing
- Patients

THERAPEUTIC PLATFORMS

- 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
Research Acceleration Initiative
Objective: to build relationships with entrepreneurial researchers and fastrack 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 AUD 250k p.a. for up to 2 years

✓ CSL scientific champions assigned to each project to provide expert, industry guidance
>20 new collaborations funded under CSL’s Research Acceleration Initiative since 2019

*Pending execution of definitive agreements
THANK YOU

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