



## Industrial Fellowships

Awarded to graduates with the potential to make an outstanding contribution to industry, for research supported by a company, leading to a patent, product or process improvement and a postgraduate award

30  
Years of  
Industrial  
Fellowships

# Come and taste the freedom

Peter Higgs, 1851 Research Fellowship 1953-1955

# Benefits

Industrial Fellowships encourage profitable innovation and creativity in British Industry – to the mutual benefit of the Fellow and his or her sponsoring company.

## Funding

- 50% of the Fellow's salary, including the employer's share of national insurance and superannuation paid, up to a limit of £25,000 p.a.
- University fees paid up to normal levels for UK students.
- Travel allowance of £3,500 p.a.
- Honorarium of £10,000 paid to the University research department on completion to support the department's research programme.

**The Royal Commission lays no claim on intellectual property rights or commercial-in-confidence material.**

## Gain new IP whilst minimising R&D costs

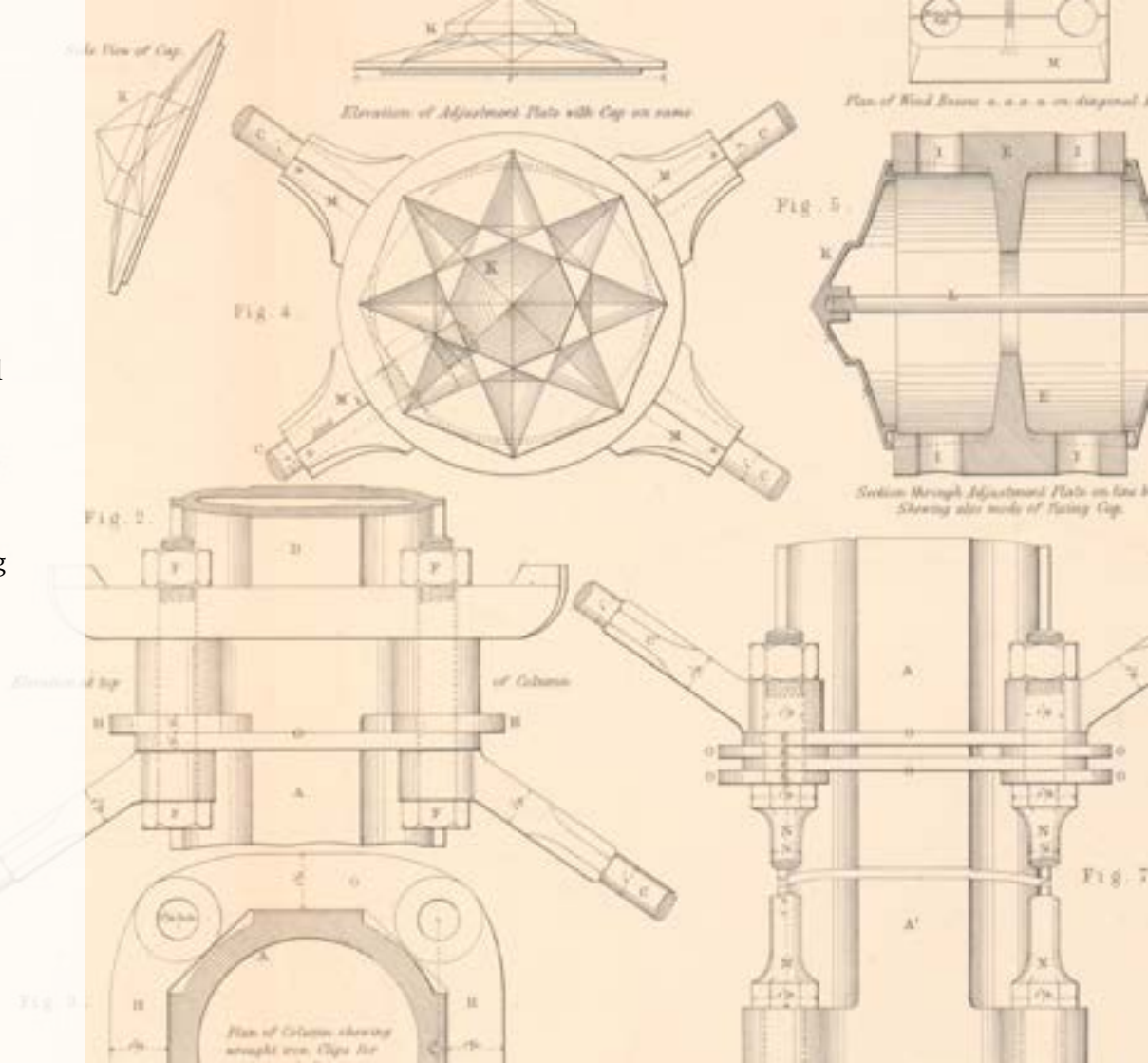
Applicants can pursue a PhD whilst working, allowing companies to conduct innovative research that furthers their business objectives, and accelerates the creation of IP.

## Pursue a PhD whilst working

Fellows receive significant funding towards their fees and salary, enabling employers to offer exciting personal development opportunities for their brightest employees.

## Collaborative relationships

Fellows and their sponsoring companies will work closely with the PhD institution, developing a mutually beneficial relationship, undertaking research that delivers tangible impact to industry.



# Apply Now

## Eligibility

The applicant must have a good first degree in engineering, science or medicine, and normally be within five years of degree graduation.

Applicants must be employed by, or have an offer of employment from a company in the UK.

Applicants must demonstrate a link between their employing company and appropriate staff at a UK University.

Applicants must have identified a research and/or development topic potentially leading to a patent, product or process in conjunction with a higher academic award, usually a PhD or EngD.

### Full Terms and Conditions

## Applications

Applications are accepted via <https://i85iawards.flexigrant.com>

### Supporting documentation

- Description by the candidate of the proposed programme of work including milestones and deliverables
- Letters of endorsement for the project expressing support for the candidate from the intended Industrial Supervisor and Academic Supervisor
- Company profile and information

1 Oct  
Applications open

Deadline for applications

10 Feb

29 Mar  
Shortlisted candidate interviews

Fellowships commence

Oct 2022

# Testimonials

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## Industrial Fellow

I can say that without the support of the Commission this project would not have gone ahead. I am grateful that it did as this project has allowed me to develop a process and product from the initial concept through to lab scale testing, something I don't believe I would have been able to do at this stage in my career without the support of the Commission. The support from the Commission I believe has been very valuable, especially to a small company. To be able to train a PhD in the company's core subject matter is something that most SMEs would not be able to do without external support.

**Andrew Anderson, Industrial Fellow 2017**

## Industry Partner

The Fellowship allowed a small start-up (3 people when the Fellowship first started) to give the Fellow the potential to develop a completely new product range from scratch and increase his knowledge and future capability. This would not have been possible without the support of the Fellowship during the period.

**Dr Alex Reip, Oxford nanoSystems**

## University Partner

It provides a fantastic platform for bright young individuals to develop their independent careers. I have found the process of being a supervisor of an Industrial Fellow most fulfilling. As an academic engineer, and Whitworth Scholar, I think it is so essential that schemes such as this fellowship continue to facilitate the engagement of academia and industry and it is only through schemes such as this that creativity and innovation in British industry will continue to propagate.

**Professor Karl Dearn, University of Birmingham**

# DZP Technologies

|                       |                                  |
|-----------------------|----------------------------------|
| Company Size          | 2-10 employees                   |
| Company Founded       | 2008                             |
| Industry Type         | Chemicals                        |
| Industrial Fellow     | Harry Cronin 2015 - 2018         |
| Industrial Supervisor | Zlatka Stoeva, Managing Director |
| University Partner    | University of Surrey             |

## Rare opportunity

The Royal Commission's Industrial Fellowship gave our small company, DZP Technologies, the rare opportunity to do extensive research in one area over several years. The Industrial Fellow was able to start with a broad research brief, investigating manufacturing techniques for a new class of materials, and explore new, tangentially related avenues in detail.

## Flexibility

Through the flexibility provided by the Commission, the funding continued for one year after the EngD had finished, allowing us to continue to employ the Fellow while letting him conduct further open, low technology readiness level (TRL) research. It was during this year that the most promising experimental results emerged.

## Commercially beneficial

In addition to process improvements related to our existing products, the R&D resulting from the Fellowship has opened up an entirely new product line. It is currently in commercial development for our customers.

## International networks

We are fostering the strong relationship we have built with the university department, with funding from the Fellowship supporting visits and cooperative, mutually beneficial research. The Fellow's presentations at conferences, also supported by the Royal Commission, has allowed us to extend our network internationally, with new research and commercial partnerships.

## High-calibre employees

The Industrial Fellowship is an invaluable tool for attracting and retaining high-calibre employees and pursuing early-stage research goals that would otherwise be out of reach.

“ The Industrial Fellowship expanded our product offering ”

# KP Technology

|                       |                                       |
|-----------------------|---------------------------------------|
| Company Size          | 2-10 employees                        |
| Company Founded       | 2000                                  |
| Industry Type         | Electrical & Electronic Manufacturing |
| Industrial Fellow     | Susanna Challinger 2016 - 2019        |
| Industrial Supervisor | Professor Iain Baikie, CEO            |
| University Partner    | St. Andrews University                |

## Links with academia

The Industrial Fellowship programme provided lasting commercial benefit for our company, as well as strengthening the relationship between us and the academic partner, St. Andrews University, leading to broader collaboration between the two institutions.

Our company provided advice, support and training for researchers, while St. Andrews supported us with fabrication of samples, and the

Industrial Fellow had a central role in strengthening this link. Additionally, our CEO was appointed as an Honorary Professor, formalising and extending the existing link.

## Travel to international conferences

Our Industrial Fellow's PhD project would not have been able to continue without the Royal Commission's support. The Fellowship facilitated travel to international conferences and helped her collaborate with other scientists working in the field;

experience that contributed to her research and she further developed with us.

## Broad collaboration

The research also involved collaboration with external agencies including Police Scotland and the National Crime Agency, and the Royal Commission even purchased new equipment for us to help our Fellow explore new areas of commercial development as part of her research.

## Further research impact

The research performed under the Industrial Fellowship with us has resulted in seven peer-reviewed publications, with five as first author. Work from the research project continues to be submitted for publication after the Fellowship.

## Susanna Challinger, 1851 Industrial Fellow

"The industrial fellowship has had a very positive impact on my project and career. While my PhD studies were started ~9 months prior to the industrial fellowship start, I do not think that this project would have continued to thesis submission without the fellowship support."

“ The Fellowship strengthened our relationship with academia ”

# Industrial Fellows 2021

## Daniya Aynetdinova

**Vertex Pharmaceuticals and University of Oxford**

Creating new bonding processes to drive 3D drug development

## Shefali Bhumbra

**Adaptate Biotherapeutics and Imperial College London**

Developing a medicine designed to modulate cancer patients' immune system to selectively eliminate cancerous cells

## Kyle Bowman

**WASE and University of Westminster**

Development of autonomous reactors to turn wastewater into energy

## Liam Bussey

**BT and University of Birmingham**

Investigating faster, better 5G through new quantum optical techniques

## Thomas Corner

**GlaxoSmithKline and University of Oxford**

Investigating and enzyme-suppressing drug to fight multiple cancers, including liver and pancreatic

## Augusto Bartolome Diaz de Budalles

**Oxford nanoSystems and University College London**

Development of a multi-level nanocoating for enhanced efficiency of commercial Hydrogen gas production

## Isobel Gordon

**Perspectum and University of Oxford**

Optimising MRI methods to improve breast cancer detection and diagnosis

## Daire O'Dubhthaigh

**Interface and Queen's University Belfast**

Smart green manufacturing for mass customisation in the textile industry

## Amelia Markfort

**Photek Ltd and Leicester University**

AI technologies for the next generation of quantum imaging

## Parijat Patel

**Caristo Diagnostics Ltd and University of Oxford**

Using artificial intelligence to improve detection of cardiometabolic conditions

## Daniel Pybus

**Mersen Teesside and Teesside University**

3D printing graphite from manufacturing waste using AI

## Andrei-Claudiu Roibu

**F. Hoffmann-La Roche Ltd and University of Oxford**

Mapping brain network activity using deep learning

## Elliott Smyth

**LifeArc and University of Leeds**

Finding new anti-viral drugs to fight human coronaviruses

# Come and Taste the Freedom

## with an 1851 Royal Commission Fellowship

**In addition to Industrial Fellowships, the 1851 Royal Commission also offers the following fellowships and awards:**

### **Research Fellowships in Science and Engineering**

Intended to give early career scientists or engineers of exceptional promise the opportunity to conduct a research project of their own instigation.

Closing Date 19 January 2022

### **Brunel Fellowship in Engineering**

Aimed specifically at researchers in the core subjects of Civil, Mechanical, Electrical and Aeronautical Engineering seeking to address the primary infrastructure needs of modern society.

Closing Date 19 January 2022

### **Industrial Design Studentships**

For outstanding engineers or scientists to undertake Masters degrees in industrial design, for up to two years.

Closing Date 3 May 2022

### **Fellowship in Design Fellowship in the Built Environment**

Awarded in alternate years for mid career professionals to explore important current issues identified by the Commissioners.

The next Fellowship in Design will open in 2022

### **RAEng 1851 Enterprise Fellowships**

A package of tailored mentoring, training and grant-funding for graduates to pursue commercialisation of their technological ideas.

### **Sir Misha Black Awards**

Given for distinguished services to design education.



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