

# Minister welcomes latest tranche of international Sêr Cymru scientists to Wales

This is the message from Wales' Skills and Science Minister, Julie James as she welcomed the latest tranche of international research Fellows and Chairs to Wales at a special reception in Cardiff last night to celebrate Sêr Cymru investments and the start of the second phase of the programme.

Sêr Cymru II aims to build on the success of the original Sêr Cymru programme, which supported the establishment of four Sêr Cymru Chairs and three research networks in Wales across STEMM (Science, Technology, Engineering, Maths and Medicine) subject areas.

This latest phase of the programme involves more than £45m investment – £29m from European funding streams – and it will fund more research chairs, 'Rising Stars' and research fellowships and include special support for those returning to work following a career break.

Led by the Welsh Government, Sêr Cymru delivers funding from the European Union (both COFUND via Horizon 2020 and European Regional Development fund via WEFO), the Welsh Higher Education sector and the Higher Education Funding Council for Wales (HEFCW).

The funding deployed through the programme aims to attract and develop some of the world's best scientific research talent in Wales, to deliver economic growth and high quality jobs.

The overall investment in the programme since its launch in 2013 now stands at nearly £100m.

Welcoming the latest tranche of Sêr Cymru II talent, Skills and Science Minister, Julie James said:

“Increasing our already impressive research capabilities by attracting brilliant new talent to Wales helps to drive up our economic prosperity by creating well paid and stimulating jobs.

“Sêr Cymru really is a partnership approach, bringing together Welsh Government, European and academic resources to deliver a programme that places Wales at the cutting edge of research developments aimed at tackling real issues such as human disease, new energy sources and innovative manufacturing and materials technologies.

“Building our research capacity also makes Wales more attractive for further investment and helps to raise our profile on an international stage. Our research discoveries can also be

commercialised, creating more and better jobs for Wales which we aim to develop and keep here.”

Wales’ Chief Scientific Adviser, Professor Julie Williams, added:

“This programme will produce a step change in research capacity and put Wales firmly on the map as a centre of scientific discovery. These young people will be the leaders of tomorrow.”

One of the latest Sêr Cymru II intakes to benefit from the programme is Dr. Catrin Williams; a multidisciplinary researcher attached to Cardiff University whose Fellowship spans the STEM subjects. One of the key areas her research aims to address is how electromagnetic fields interact with biological systems.

Explaining what this means and why she was keen to get involved with Sêr Cymru II, Catrin said:

“My area of work – examining how electromagnetic fields interact with biological systems – put simply is about looking at the impact microwaves (found in common devices such as mobile phones, Wi-Fi and microwave ovens to more advanced equipment such as those used in hospitals for treating cancers and heart diseases) have on living things.

“Some of the current impacts these appliances have on us are quite obvious, for example improved communications, faster cooking times and more effective medical treatments. What are less obvious are the hidden or longer term impacts these microwaves might be having on us, such as potential molecular changes in our cellular make-up.”

Dr. Williams continued:

“These potential changes may be positive or negative, leading to therapeutic or destructive outcomes. Even destructive changes may lead to positive results, for example a better understanding of the risks associated with microwaves and how these can be minimised or avoided. Additionally, we can also look at how potential destructive outcomes can be used to our advantage, such as in the development of new technologies and treatments that lead to the more efficient and effective removal or avoidance of cancers and some cardiac diseases.

“At this point we simply don’t know what opportunities and challenges microwaves present and this is why this area of research is so exciting and important.”