



# BRITISH SOCIETY FOR NANOMEDICINE

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## Welcome to the British Society for Nanomedicine Newsletter

With the global benefits of the new science of nanomedicine growing each year, the British Society for Nanomedicine has been created to allow open access for industry, academia, clinicians and the public to news and details of ongoing research throughout the UK.

As a registered charity (Charity number 1151497) our mission includes the direct explanation of the ongoing science and commercial developments to allow the public to understand and stay in touch with this exciting area as it impacts future global healthcare. Scientists can also present their latest advances and highlight their work to industry and other researchers.

The Society is affiliated to other leading organisations involved with nanomedicine including: CLINAM, the European Technology Platform for Nanomedicine, the British Pharmacological Society and the American Society for Nanomedicine.

You are welcome to join the Society through our membership page online. We would be happy to hear your comments and any suggestions as to how you want to be involved with the BSNM.

## New BSNM Champion Profile: Siyu

We welcome a new BSNM champion to the Society this year, Siyu Long. Siyu graduated from Southwest Jiaotong University with a Master of Engineering degree in 2022. During her degree, Siyu focused on the biodegradable hydrogel containing versatile nanoparticles for the treatment of human bone diseases. In the same year, Siyu joined the McDonald group and she is now working on designing fluorescent lipid nanoparticles as versatile carriers for the application of skin penetration.



## New BSNM Champion Profile: Zainab



Being a researcher in the field of cancer therapy has always been my passion since the start of my undergraduate studies. The field of nanomedicine has always been interesting to me; the idea of working on a nanosized formulation that can have a huge impact on the characteristics of drugs continuously makes me curious and thrilled to read and discover more. I obtained my Bachelor's in pharmacy at Al Al-Ahliyya Amman University, Jordan (Second Class Upper Division) in 2019 and an MSc in Advanced Drug Delivery (with Distinction) at the University of Strathclyde in 2022. I am now a PhD student at the University of Strathclyde, in Dr. Christine Dufès' laboratory, funded by the Global Research Scholarship (2022-present). The aim of my PhD studies is to develop novel tumour-targeted nanomedicines for the treatment of prostate cancer. Prostate cancer is the most common cancer in men and 1 in 8 men will get prostate cancer in their lifetime (Prostate Cancer UK). One man dies from prostate cancer every 45 min in the UK. Dendrimers have recently been reported as promising non-viral carriers for nucleic acid and drug delivery to cancer cells. Furthermore, their high aqueous solubility, low toxicity, and compact globular shapes, make these dendrimers ideal carriers for therapeutic agents, facilitating the passive targeting of anticancer drugs to tumour tissues due to the enhanced permeability and retention effect.

Since the start of my PhD, I became a scientific member of the British Society for Nanomedicine (January 2023-present) and a champion (June 2024-present). I presented a poster at the conferences in Liverpool (June 2023) and Cambridge (September 2024). As a champion, I participate in activities to help facilitate changes towards the growth and development of society, act as a local ambassador for the society, and supporting and being involved in society-related outreach activities and public engagement, I co-chaired one of the sessions during the annual meeting in Cambridge (September 2024) and participated in the BSNM champions oral presentation along with the champions.

## BSNM Champion Overview: Mazna

I am a pharmacist by background, and I decided to delve back into research to undertake a PhD. I am undertaking my PhD at UCL's School of Pharmacy, where I am part of the Centre for Doctoral Training (CDT) in Transformative Pharmaceutical Technologies. My research focuses on the development of long-acting formulations for the subcutaneous delivery of therapeutic peptides. These peptides are highly selective and potent but face clinical challenges due to their low permeability and short half-lives. My project aims to address these issues by utilising formulation strategies to design a subcutaneous drug delivery system that reduces the dosing frequency, ultimately improving patient compliance for chronic conditions like diabetes.

In addition to my research, I am one of the BSNM champions, where I help promote the society and its events at my home institution. Being a champion has given me the opportunity to actively engage with the wider scientific community, particularly through the annual conference, which I highly recommend all BSNM champions to get involved in!



## BSNM Annual Meeting 2024: Emmanuel College, Cambridge

On the 9<sup>th</sup>-10<sup>th</sup> September, the BSNM hosted our Annual Meeting (#BSNM2024) in the beautiful Emmanuel College, University of Cambridge, UK. Over the course of the two-day event, conference participants had the opportunity to hear about a wide range of research topics, ranging from novel nanomaterials and nanoparticles for drug delivery to nanoparticle fabrication, nano-biological interactions, and innovative microbial applications for nanomaterials.

Alongside our esteemed keynote speakers, [Professor Laura Itzhaki](#) (University of Cambridge), [Professor George Malliaras](#) (University of Cambridge), [Professor Moein Moghimi](#) (Newcastle University) and [Professor Nguyen T. K. Thanh](#) (University College London), we were delighted to welcome Dr Kevin Jackson (Waters Wyatt), Dr Alexander Dulebo (Bruker), Dr Stephane Mazlen (Izon), and Dr Nisha Ponnappan (Medicines Discovery Catapult) as invited speakers. Our delegates spanned the scientific pathway, from early career researchers, academics and industry experts from across Europe, making for a dynamic and exciting scientific programme.



The best poster presentation was jointly awarded to Sophia Belser from University of Cambridge for her work on *Probing local thermodynamics of organelles at the nanoscale with spin-based, biocompatible thermometry and rheometry*. and Alexander Evtushenko also from University of Cambridge, for his work on *Protein-Based Nanotechnology for the Treatment of Pancreatic Ductal Adenocarcinoma*.

The best oral presentation was jointly awarded to Anna Scheeder from University of Cambridge for her work on *Molecular Mechanisms of Cationic Fusogenic Liposome Interactions with Bacterial Envelopes* and Rory Hills from University of Oxford for his work on *Quartet Nanocages Elicit Broad Anti-Coronavirus Humoral Immunity to Facilitate Proactive Vaccinology*.

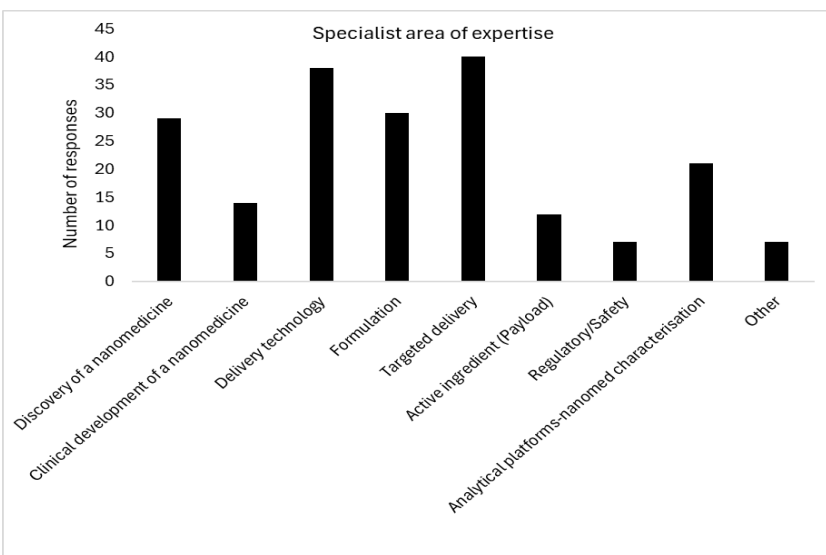
Also, a BSNM first, a prize for outstanding innovation was awarded to Oliver Vanderpoorten from UiT The Arctic University of Norway, for his work on the NANOSPACER.

We, at BSNM would like to extend a big thank you to the award sponsors, Emmanuel College, along with the many companies who kindly sponsored and exhibited at the event, thank you to all our fabulous sponsors, [Analytik](#), [Anton Paar](#), [Bruker](#), [Croda](#), [Izon Science](#) and [Waters | Wyatt Technology](#) and of course, to all our delegates for another fantastic annual meeting!

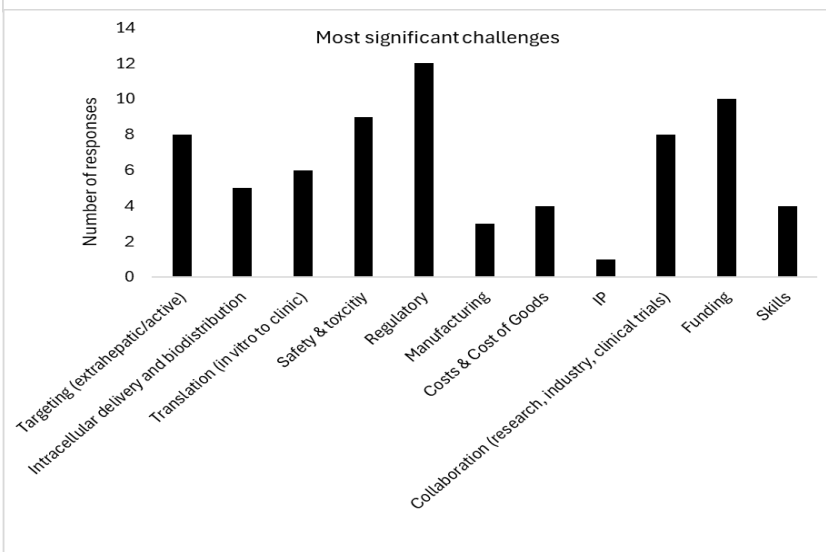
## Medicines Discovery Catapult Initiative

We would like to express our gratitude for those of you that filled in our **UK Nanomedicine Landscape Map** survey in the last month so that we can highlight the strengths, identify the gaps in the field and foster partnerships in the UK. At MDC, we recognise the importance of collaborative efforts to advance the field of nanomedicines and are working with the BSNM to facilitate this for its membership and beyond. If you have not yet completed the survey, there is still time to have your say. You can complete it **by scanning the QR code in the poster below or clicking the link [here](#)**. The purpose of the map is to:

- To build a platform of UK expertise in Nanomedicines to benefit the health and wealth of the UK
- To provide a framework and an opportunity to consolidate our strengths and identify the gaps
- Using this knowledge to create collaborative research and to secure funding
- To support the growth of SMEs and spinouts by enabling access to expertise and technologies across the UK
- To encourage inward investment from companies internationally
- Ultimately, to advance the field of nanomedicines to deliver patient benefit



We are in the process of building the map of the UK Nanomedicines landscape, but we have generated some insightful data on the specialist areas we have in operation in the UK and the significant challenges that our innovators are facing. From the data, we can see that we have a broad range of expertise from discovery of a nanomedicine to formulation and targeted delivery. We can see that there are several barriers that must be addressed to progress the field.



We look forward to sharing our map with you early in 2025. As this year comes to an end, we wish you a restful break and a bright start to the new one!





## BSNM Annual Meeting 2025

COMING SOON!

We are looking forward to seeing you all at the 2025 Annual Meeting!

Keep an eye out on social media and email for more details!



Annual Meeting,  
TBC

## Amazon Smile

If you're shopping on Amazon this Christmas why not help support BSNM by shopping through [@AmazonSmile](#). Amazon will make a donation to BSNM each time you order. Simply visit <https://smile.amazon.co.uk/ch/1151497-0>



## Recent Publications and Vacancies Pages



Have a publication in the field of Nanomedicine? You can now Advertise your Nanomedicine Publications with us by simply filling in our [Online Form](#) or check out our current list of member publications [HERE](#).



We are currently offering employers the chance to advertise their vacancies and studentships with us for free. Get in touch via [britishsocietyfornanomedicine@gmail.com](mailto:britishsocietyfornanomedicine@gmail.com) or simply fill in our quick and easy [online form](#) to upload your job advert to our website. We will promote any jobs to our membership through social media and occasionally through email.

## BSNM Fellowships

In January, the British Society of Nanomedicine launched its esteemed BSNM Fellowships and Associate Fellowships, and we are pleased to welcome Dr Aristides Tagalakis and Dr Mayank Singh as the Society's first Fellows!



Dr Aristides Tagalakis, FBSNM



Dr Mayank Singh, FBSNM

If you are interested in becoming either a Fellow or an Associate Fellow, please take a look at our webpage to check eligibility: <https://www.britishsocietyofnanomedicine.org/fellowship/>

- **Fellow** (FBSNM) is the highest and most prestigious honour that will be conferred upon members in acknowledgment of their outstanding achievements and significant impact in the field of nanomedicine.
- **Associate Fellow** (AFBSNM) is open to early-career members who have already showcased promising contributions to the field.

For more information on any of these roles and **how to apply**, please see the [Fellowship Guidance Document](#).

Applications will be reviewed throughout the year and appointment for Fellows and Associate Fellows will be formally announced at the BSNM Annual Meeting.

