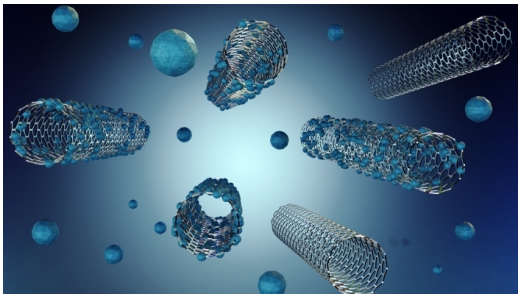
Self-Assembled Hybrid Materials in Nanomedicine: From Non-Viral Vectors to Cancer Therapy and Neurostimulation



25.fév - 27.fév 2026

Cod. 007-26

Modalité:
En personne

Édition
2026

Type d'activité
Workshop

Date
25.fév - 27.fév 2026

Location
Miramar Palace

Langues
Anglais

Reconnaissance officielle par l'État
30 heures

Comité d'organisation

Description

Discover the latest breakthroughs in self-assembled and smart materials combining polymeric, inorganic, and biological components for innovative applications in gene delivery, cancer therapy, organ preservation, neurostimulation, and more.

This exciting conference will feature cutting-edge research in:

- Polymer & Nanomaterial Synthesis
- AI-Guided Material Design
- Targeting Strategies
- Molecular Imaging & Synthetic Biology
- Bioelectronics & Nanomaterial Integration

Who Should Attend? Material scientists, chemists, biologists, biomedical engineers, and biophysicists working at the frontier of materials and life sciences—especially in the fast-growing field of nanomedicine.

The event will showcase final results from the MSCA-RISE-2020 SUPROGEN project, and is proudly supported by the THERABOT (MSCA-EXCHANGES), LIV-BIO (Japan Society for the Promotion of Science (JSPS) Core-to-Core Program), and REDBUL projects.

Don't miss this unique opportunity to connect, collaborate, and innovate!

CONFERENCE CHAIR

- Sergio E. Moya.

CO-CHAIRS

- Horacio Cabral
- Radostina Georgieva

Objectifs

The conference aims to explore the latest developments in self-assembled and smart materials that integrate polymeric, inorganic, and biological components for a wide range of nanomedicine applications, including gene delivery, cancer treatment, organ preservation, and neurostimulation.

It will cover both fundamental and applied science, ranging from polymer and nanomaterial synthesis, AI-guided design, and targeting strategies to molecular imaging, microbiology, synthetic biology, and bioelectronics in combination with nanomaterials.

The event will be of primary interest to material scientists, chemists, biologists, biomedical engineers, and biophysicists working in nanomedicine and at the interface of material and biological sciences.

The conference will also serve as a platform to present the results of the MSCA-RISE-2020 SUPROGEN project, which is nearing completion. It will be supported by the THERABOT (MSCA-EXCHANGES), LIV-BIO (Japan Society for the Promotion of Science (JSPS) Core-to-Core Program), and REDBUL projects.

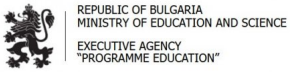
Organisée par

SAHMN 2026
Self-Assembled Hybrid Materials in Nanomedicine
From Non-Viral Vectors to Cancer Therapy and Neurostimulation

CIC biomaGUNE
MEMBER OF BASQUE RESEARCH & TECHNOLOGY ALLIANCE

Soft Matter Nanotechnology Lab

En collaboration avec



Directed by

Sergio Moya

CIC biomaGUNE

Sergio E. Moya completed his undergraduate studies in Chemistry at the National University of the South, Argentina, and obtained his PhD in Physical Chemistry at the Max Planck Institute of Colloids and Interfaces, Germany. He carried out postdoctoral research at the Collège de France and at the University of Cambridge, UK. Since 2007, he has led a research group at CIC biomaGUNE, Spain. He has held adjunct faculty positions at Zhejiang University, China, and is currently Adjunct Professor at the Faculty of Medicine, Chulalongkorn University, Thailand. Dr. Moya is the author of more than 310 peer-reviewed publications in the fields of soft matter, nanomedicine, and physical chemistry. His research group specialises in polyelectrolytes, hybrid materials and supramolecular chemistry at the interface with biological sciences.

Professeurs

Sylvie Begin

Sylvie Begin-Colin is Professor at the European Engineering School in Chemistry, Materials and Polymers (ECPM) at the University of Strasbourg and was Director of ECPM from 2014 to 2021. Her research at the Institut of Chemistry and Process for Energy Environment and Health focuses on the chemical engineering of hybrid nanomaterials for environment and health and she heads the "NAMATHY " team. One great part of her research aimed at designing of iron oxide nanoparticles with different composition, shapes and sizes as these nano-objects are highly sought after for their applications in the biomedical field and are also considered as the building blocks of the future nanotechnological devices. She has obtained AOARD, ANR, INCA, Labex, MICA, ARC, INTERREG, Alsace contre le Cancer grants and has participated as partner to different European programs (Euronanomed, Marie Curie). She is holder of 218 publications and 13 book chapters, 4 patents, more than 200 oral communications and 90 invited lectures/seminars. Her work has been rewarded by the “Jean-Rist” price of the French Society for Metallurgy and Materials, a Scientific Excellence Award and award of “Chevalier dans l'ordre des palmes académiques”.

horacio Cabral ---

Universidad de Tokio

Dr. Horacio Cabral is an Associate Professor in the Department of Bioengineering, The University of Tokyo. His research focuses on the development of nanomedicines against intractable diseases. Several of his nanocarriers for anticancer drugs have progressed to human clinical trials, showing enhanced safety and improved patient survival. His work has significantly advanced the understanding of nanomedicine design for targeted delivery and enhanced efficacy. More recently, his research has expanded to developing innovative nanomedicines for proteins and nucleic acids, aiming to create next-generation therapeutics. These advances have led to the co-founding of two startup companies. He has authored over 150 publications in high-impact journals, including Nature Nanotechnology and Nature Biomedical Engineering, and holds more than 30 patents. Dr. Cabral has been recognized with numerous awards, such as the 2023 Dean’s Award for Research from The University of Tokyo. He serves on the editorial boards of the Journal of Controlled Release, STAM, Nanomaterials, Frontiers in Oncology and MedComm, and in the advisory board of Macromolecular Bioscience.

Changyou Gao

Changyou Gao is a Cheung Kong Scholar of Ministry of Education of China, a winner for the National Science Fund for Distinguished Young Scholars of China, and a fellow of the International Federation of Biomaterial Science and Engineering Societies, the American Institute of Medicinal and Biological Engineering, the Royal Society of Chemistry, and the Chinese Society of Biomaterials. He is now serving as a deputy president of Chinese Society of Biomaterials, and an associate editor of Biomaterials Advances and Progress in Materials Science. His research interests include self-adaptive biomaterials, immuno-modulation biomaterials, anti-bacterial biomaterials and their applications in tissue repair and regeneration. He has published more than 500 papers with an H-index of 88.

Twan Lammers

Twan Lammers obtained a D.Sc. in Radiation Oncology from Heidelberg University and a Ph.D. in Pharma-ceutics from Utrecht University. In 2009, he started the Nanomedicine and Theranostics group at RWTH Aachen University, where he was promoted to full professor of medicine in 2014. His group aims to individ-ualize and improve disease treatment by combining drug targeting with imaging. To this end, image-guided (theranostic) drug delivery systems are being developed, as well as materials and methods to monitor tu-mor growth, angiogenesis, inflammation, fibrosis and metastasis. Lammers has received multiple scholar-ships and awards, including ERC starting, consolidator and proof-of-concept grants, the CRS Young Investi-gator Award and the CRS Exceptional Leadership Award. He served as president of CRS in 2023-2024 and currently is secretary of ESMI. He acts as associate editor for JCR, DDTR and MIB. Since 2019, he has been included in the Clarivate Analytics list of Highly Cited Researchers.

Aitziber Lopez Cortajarena

CIC biomaGUNE

Doctora en Bioquímica de la UPV/EHU (2002), ha publicado más de 100 artículos científicos internacionales, 5 capítulos de libros invitados, 6 revisiones, posee 5 patentes y ha editado 2 libros invitados. Líder de más de 15 proyectos de investigación, destacan los concedidos por el Consejo

Europeo de Investigación (ERC) y la coordinación de un competitive Proyecto Europeo FET-Open-eProt; proyectos nacionales de la Agencia Estatal de Investigación y proyectos regionales del Gobierno Vasco, de salud y para proyectos de especial urgencia por la pandemia del coronavirus. Destaca su participación internacional en comités de evaluación, comités editoriales (editora de una revista publicada por la American Chemical Society, y actualmente editora senior de la revista Protein Science) y otros órganos como el Consejo Ejecutivo de la International Protein Society, o la vicepresidencia de la Sociedad de Biofísica de España. Ha formado y supervisado, 14 investigadores postdoctorales, 17 predoctorales, 21 estudiantes de máster, 23 de grado y está comprometida con la promoción de la ciencia entre las mujeres, participando en numerosas actividades como STEAM Euskadi, el Día Internacional de Mujeres en Ciencia, y la iniciativa Emakumeak Zientzian.

Ravin Narain

Ravin Narain, PhD, PEng, FRSC, is a Professor in the Department of Chemical and Materials Engineering at the University of Alberta, Canada. He has made significant contributions to biomedical research using safe polymer-based biomaterials. His research has also covered nano- and regenerative medicine, with an emphasis on developing materials for cancer therapeutics, anti-fouling and anti-microbial surfaces, and cell/tissue engineering advances. He has published over 250 articles in peer-reviewed journals and has edited several books namely Engineered Carbohydrate-Based Materials for Biomedical Applications (Wiley), Chemistry of Bioconjugates (Wiley), Polymers and Nanomaterials for Gene Therapy (Elsevier), Polymer Science and Nanotechnology (Elsevier), and Natural and Synthetic Hydrogels (Elsevier). He was appointed as the section editor for the 2nd edition Comprehensive Glycoscience (Elsevier). He has received many awards including the Distinguished Visiting Scientist Award from Commonwealth Scientific and Industrial Research Organization (CSIRO) in Australia.

Tarifs inscription

MATRÍCULA	JUSQU'AU 20-02-2026
General	450,00 EUR
Ponente invitado/a y Organización	0 EUR

Lieu

Miramar Palace

Pº de Miraconcha nº 48. Donostia / San Sebastián

Gipuzkoa