CONFERENCIA INVITADA / INVITED SEMINAR

# Metal NHC Complexes: From Anticancer to Anti-infective Metallodrugs


## Prof. Dr. Ingo Ott

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| FECHA / DATE | HORA / TIME | LUGAR / VENUE |
|---|---|---|
| 23 de Septiembre de 2026<br>Sept 23, 2026 | 10:30 – 11:45 h<br>(10:30 AM – 11:45 AM) | Salón de Grados<br>Departamental 1<br>Campus de Móstoles (URJC) |

## ABOUT THE SPEAKER

Prof. Dr. Ingo Ott is Full Professor and Chair of Medicinal and Pharmaceutical Chemistry at Technische Universität Braunschweig (Germany) since 2013. He completed his pharmacy degree at the University of Innsbruck (Austria) and earned his Ph.D. in Pharmaceutical Chemistry from Freie Universität Berlin. His international academic track record includes extensive postdoctoral research at the East China University of Science and Technology in Shanghai, followed by a junior professorship at TU Braunschweig, consolidating his reputation as an international authority in bioinorganic medicinal chemistry.

With well over 150 peer-reviewed publications and thousands of citations, Prof. Ott's research focuses on the rational design, bioorganometallic chemistry, and molecular pharmacological evaluation of novel metallodrugs. His laboratory is internationally recognized for deciphering cellular pathways regulated by metal scaffolds, elucidating mitochondrial enzyme inhibition, and translating organometallic architectures into next-generation therapeutic solutions for oncology and infectious diseases.

## ABOUT THE LECTURE

Transition metal complexes bearing N-heterocyclic carbene (NHC) ligands have revolutionized medicinal inorganic chemistry due to their remarkable synthetic versatility, thermodynamic stability, and privileged cellular uptake. In this lecture, Prof. Ott will showcase his group's latest breakthroughs in engineering mono- and bis-NHC gold(I/III) and silver(I) complexes, detailing their mechanistic transition from potent cytotoxic agents against chemoresistant cancers to frontline antibacterial and antiviral drug candidates. Highlights include the selective target inhibition of bacterial and mammalian thioredoxin reductases (TrxR), the circumvention of active drug efflux mechanisms, efficacy in multidrug-resistant pathogens (such as MRSA and Gram-negative models), and recent findings targeting viral proteases like SARS-CoV-2 PLpro.