Curriculum Vitæ – Professor Dr. Habil. Cecilia Cristea

Name and Address: Cecilia Victoria Cristea (15/01/1974)
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Academic Career:

2019 - present: Director of the Department Pharmacy I, Faculty of Pharmacy, "Iuliu Hatieganu" University of Medicine and Pharmacy (UMFIH)

2017 - present: Group leader of the Bioelectrochemistry and Biosensors group, Department of Analytical Chemistry, Faculty of Pharmacy, UMFIH

2016 - present: Full Professor at the Department of Analytical Chemistry, Faculty of Pharmacy, UMFIH

2012 - 2016: Associate Professor at the Department of Analytical Chemistry, Faculty of Pharmacy, UMFIH

2002 - 2012: Assistant Professor at the Department of Analytical Chemistry, Faculty of Pharmacy, UMFIH

1998 - 2002: Research Assistant at the Francophone Associated Laboratory, Faculty of Chemistry, "Babes Bolyai" University

Academic Training:

- *Undergraduate studies:* ***Chemistry*** (1992 - 1997) at Faculty of Chemistry and Chemical Engineering, "Babes-Bolyai" University, Cluj-Napoca, Romania and ***Pharmacy*** (2005 - 2009) at Faculty of Pharmacy, UMFIH, Cluj-Napoca, Romania
- *Master of Science* (1997 - 1998) in Applied Electrochemistry from Faculty of Chemistry and Chemical Engineering, "Babes-Bolyai" University, Cluj-Napoca, Romania.
- *PhD in Chemistry (*1997 - 2003) from University of Rennes 1, Rennes (France) and "Babes Bolyai" University, Cluj-Napoca (Romania); French government Fellowship (2001-2003).
- *Post-Doctoral studies* (2004): postdoctoral researcher at the University of Sherbrook, Quebec, Canada.
- *Habilitation thesis* (June 2015): "Modified electrodes for electrochemical sensor design with applications in pharmaceutical, biomedical and environmental analysis".

Research Interests:

- design and development of surface-modified electrodes; the elaboration of various nanoplatforms for electrochemical sensors with applications in the biomedical and pharmaceutical analysis;
- the use of biomimetic elements in sensor's design; the development of immunosensors based on antibodies and aptamers for the detection of cancer biomarkers and of some drugs; selection of aptamers through SELEX procedure;
- design of hybrid sensors (electrochemical and SPR) for cancer biomarkers and antibiotics detection;
- sensors development for heavy metals detection;
- organic electrosynthesis;
- targeted drug delivery through electro-driven techniques.

Scientific experience:

- *Research grants:* member in more than 30, of which 14 as *Principal investigator*
- *Member of the organising and scientific committees of several summer schools and international conferences*, such as: *The "Journées d'électrochimie, 2009"*, 6-10 July 2009, Sinaia, (Romania); *The Third International Regional Symposium on Electrochemistry: South-East Europe, RSE-SEE*, 13-17

May 2012, Bucharest (Romania); *The International Workshop "Nouveaux Matériaux pour la Reconnaissance électrochimique mineraux et des espèces biologiques"*, *NOMARES*, 13-14 May 2012, Bucharest (Romania); *The "Electrochemistry for environment and biomedical applications" Summer School*, 17-21 June 2013, Cluj-Napoca (Romania); *The "International Conference on Advancements of Medicine and Health Care through Technology"*, 4-6 June 2014 and 24-26 October 2016, Cluj-Napoca (Romania); *The Summer school in Bioelectrochemistry - SMOBE*, 17-19 August 2016, Antwerp (Belgium); *The 3rd International Workshop on "Specific Methods for food safety and quality"*, 27th September 2016, Beograd (Serbia); *The 26th International Symposium in Bioelectrochemistry and Bioenergetics*, 6-13 May 2021 (online) Cluj-Napoca (Romania).

- *Publications*: more than 130 full papers(Hirsch index: 25; Web of science page: http://www.researcherid.com/rid/B-6259-2011; ORCID ID: 0000-0002-4158-3324) in international peer review journals; author of 19 chapters in books published by CRC Press-Taylor and Francis, Elsevier, Springer, Wiley, Intech, Bentham and 6 books for students use.
- *Other contributions:* 4 patents; 12 proceedings; presentations in national (27) and international conferences (over 100 with 9 invited conferences and keynote lectures, 24 oral presentations and over 70 poster presentations);.

Honors and Distinctions:

- The "*In hoc signo vinces*" Award, granted by the National Research Council Scientific Studies in Higher Education – UEFISCDI for young researchers (2006).
- The "*Teodor Goina*" Award of Faculty of Pharmacy for the research activity (2010) and for publishing the chapter in Dekker's Encyclopedia of Nanosciences and Nanomaterials (2014) and for outstanding results in research (2019) granted by UMFIH Cluj-Napoca, Romania.
- The Faculty of Pharmacy Award for excellence in scientific research (2018) granted by UMFIH Cluj-Napoca, Romania.
- The "*Gheorghe Spacu*" Diploma of the Romanian Chemical Society for special merits in the Research activity (2019).

Scientific organizations membership:

- International Society of Electrochemistry – Regional representative (2021-2023)
- Bioelectrochemical Society – Member in the BES Council (2018-2021)
- Romanian Society of Chemistry – Vice-president of Electrochemistry and Analytical Chemistry Divisions
- Romanian Society of Pharmaceutical Sciences

Selected publications:

Bogdan Feier, Ana Gui, **Cecilia Cristea**, Robert Săndulescu, Electrochemical determination of cephalosporins using a bare boron-doped diamond electrode, *Analytica Chimica Acta*, **2017**, 976, 25-34.

Bianca Ciui, Mihaela Tertiş, Andreea Cernat, Robert Săndulescu, Joseph Wang, **Cecilia Cristea**, Finger-based printed sensors integrated on a glove for on-site screening of *Pseudomonas aeruginosa* virulence factors, *Analytical Chemistry,* **2018,** 90, 7761−7768.

Adrian Blidar, Bogdan Feier, Mihaela Tertis, Ramona Galatus, **Cecilia Cristea**, Electrochemical Surface Plasmon Resonance (EC-SPR) Aptasensor for Ampicillin Detection, *Analytical and Bioanalytical Chemsitry*, **2019**, 411 (5) 1053-1065.

Ioana Tiuca Gug, Mihaela Tertis, Oana Hosu, **Cecilia Cristea**, Salivary biomarkers detection: Analytical and immunological methods overview, *Trends in Analytical Chemistry,* **2019**, 113 301-316.

Mihaela Tertis, Petrica Ionut Leva, Diana Bogdan, Maria Suciu, Florin Graur, **Cecilia Cristea**, A Highly Sensitive and Selective Label-free Aptasensing Platform for Electrochemical Detection of Interleukin-6 - Application in Colorectal Cancer Detection, *Biosensors and Bioelectronics,* **2019**, 137, 123-132.