

## Andrzej Kutner

*Curriculum Vitae*



### *Personal details*

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Current occupation: Department of Drug Chemistry, Faculty of Pharmacy, Medical University of Warsaw, 02-097 Warsaw, 1 Banacha, Poland, research and teaching professor  
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### *Education*

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M.Sc. in chemistry, with distinction, Chemistry Department, University of Warsaw, "Synthesis and Baeyer-Villiger rearrangement of cholestanones", supervisor - Prof. Władysław J. Rodewald

Ph.D. in chemical sciences, with distinction, Chemistry Department, University of Warsaw, thesis: "Studies on natural cholanoic acids of therapeutic potential", supervisor – Dr. Romana Jaworska

D.Sc. (habilitation), Pharmacy Department, Medical Academy of Warsaw (currently: The Medical University of Warsaw), "Studies on active analogs of vitamins D"

Professor in pharmaceutical sciences, Pharmacy Department, Medical Academy of Warsaw (currently: Medical University of Warsaw)

### *Research positions and honors*

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– 2018 Pharmaceutical Research Institute (PRI), Warsaw, PL, from research assistant to professor  
1984 - 1986 and 1987 University of Wisconsin-Madison, Department of Biochemistry, USA, a research associate with Prof. Hector F. DeLuca  
1990 - 1997 Head, Contract research and manufacturing with a pharmaceutical company Solvay B.V., The Netherlands, "Design, synthesis, and manufacturing of vitamin D compounds"  
1993 New York University, Department of Chemistry, USA, visiting scientist with

Prof. Stephen R. Wilson

- 1998 Visiting Professor, short visits and lectures at University of Minnesota, Duluth, Chemistry Dept., with Prof. Ronald Caple; University of California, Riverside, Chemistry Dept., with Prof. William H. Okamura; University of Wisconsin Madison, Biochemistry Dept, with Prof. H.F. DeLuca
- 1999 Guest Editor, *Current Pharmaceutical Design*, Special Issue “Vitamin D Inhibitors of Cancer Growth”
- 2000 - 2012 Research Director of PRI, three consecutive terms
- 2006 - present „Strategies of pharmaceutical syntheses”, teaching course at the Chemistry Department, University of Warsaw
- 2012 - 2015 Chair, Scientific Board, PRI
- 2012 - 2014 External Expert to National Science Center, Cracow, PL
- 2012 - 2013 Member, National Committee for evaluation of grant proposals, National Center for Research and Development, Operational Program of Innovative Economy PO IG 2007-2012, Action 1.3.2., patent protection of R&D, the representative of the scientific community, Warsaw, PL
- 2013 - present External Expert, National Center for Research and Development, Warsaw, PL
- 2014 Member of the Panel of Chemical and Pharmaceutical Sciences, World Undergraduate Award, Ireland
- 2016 - present External Expert of the Ministry of Development, Warsaw, PL
- 2018 - present Official representative of the National Center of Research and Development to the Bridge Alfa Program, Life Sciences, and RSD Funds and reviewer of several R+D Projects, Warsaw, PL
- 2019 - present - the Medical University of Warsaw, Faculty of Pharmacy, Department of Bioanalysis and Drug Analysis and Department of Drug Chemistry, research and teaching professor
- Austrian Science Fund (FWF), independent reviewer
  - representation of the National Center of Research and Development to the Intelligent Development Operational Program Investment Committee, Action 1.3.1. Bridge Alfa, LSI, and RDS Funds; 11 reviews of R&D projects
  - external expert, Intelligent Development Operational Program, Action 3.2.2. „Loan for technological innovations” (Agreement No. 034-01/2020 na lata 2020-2027)
  - representative of the National Center of Research and Development to the Investment Committee, Intelligent Development Operational Program, Action 1.3.1., Bridge Alfa (Agreement No. 50/2020/E)
  - member, Project Evaluation Committee, Intelligent Development Operational Program, Action 3.2.2. “Loan for technological innovations” 2014-2020, Call No. 6 and 7
  - Section Editor, „Natural products chemistry”, *Molecules* (MDPI), [https://www.mdpi.com/journal/molecules/sectioneditors/natural\\_products\\_chemistry](https://www.mdpi.com/journal/molecules/sectioneditors/natural_products_chemistry)
- 2022- present Co-Chair, Scientific Committee, Interdisciplinary Conference on Drug Sciences, ACCORD 2022, <https://accord.wum.edu.pl/>

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### ***EU funded grants***

2005-2008FP6-LSH-2004-1.2.1-5 IFESCIHEALTH, Project acronym: EUMAPP, European Union MicrodoseAMS Partnership Programme, “Microdosing studies to gain

enhanced absorption, distribution, metabolism, excretion (ADME) – parameters for biopharmaceuticals”, Project lead at PRI, grant ID:18672, <https://cordis.europa.eu/project/rcn/78419/factsheet/en>

2013-2016 FP7-PEOPLE-2012-ITN, Project acronym: DECIDE, “Decision-making within cells and differentiation entity therapies”, Co-chair and WP2 Lead, grant ID: 315902, <https://www.birmingham.ac.uk/generic/decide/partners/index.aspx>

2018-2022 Horizon 2020, MSCA, RISE, Project acronym: ORBIS, “Open Research Biopharmaceutical InternshipSupport”, Co-chair and WP1 Co-Lead, 2018, grant ID: 778051, <http://www.orbisproject.eu>

### ***Recent national grants***

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National Centre for Research and Development (NCRD, Warsaw, PL), Project WND-POIG.01.03.01-14-062/09 „Innovative technologies of **cardiovascular** drugs of a special therapeutic and social importance”, Operational Program of Innovative Economy (OPIE 2007-2013 (extended for 2014), Priority 1, Activity 1.3, Support for R&D Projects for entrepreneurs completed by research entities, Sub-activity 1.3.1, set of five projects, lead.

NCRD Project UDA-POIG.01.03.01-14-069/08-00 „Development of innovative technologies of **oncologic** drugs of a special therapeutic and social significance” OPIE, 2007-2013, Priority 1, Activity 1.3, Support for R&D Projects for entrepreneurs completed by research entities, Sub-activity 1.3.1, set of five projects, lead.

NCRD Project UDA-POIG.01.03.01-14-068/08-00 „Development of innovative technologies of **ophthalmic** drugs of a special therapeutic and social significance” OPIE 2007-2013, Priority 1, Activity 1.3, Support for R&D Projects for entrepreneurs made by research entities, Sub-activity 1.3.1, set of five projects, lead.

Project KB/150/12.852/IT1-B/U/08, Technological Initiative of the Ministry of Science and Higher Education, 2009-2013, ”Development of a synthetic technology of the pharmaceutical substance **paricalcitol and** its dosage form used in chronic renal failure of dialyzed patients”, scientific consultant.

Project KB/151/13364/IT1-B/U/08, Technological Initiative of the Ministry of Science and Higher Education, 2008-2012 (extended, 2014), ”Development of a synthetic technology of the pharmaceutical substance **capecitabine** and its dosage form used as an anticancer drug”, lead.

Project BOB-661-324/2021, 2021-2023 "Initiative of Excellence - Research University", Measure VI.1. Warsaw University and Medical University of Warsaw: “Developing structures of novel **vitamin D analogs** as potential drugs to improve the efficacy of standard therapy for ovarian cancer”.

## Research interests

medicinal chemistry, structure-activity relationship, synthetic strategies of pharmaceutical substances, design and synthesis of vitamin A and D anticancer analogs, structure analysis of nuclear receptor ligands

## Recent awards

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- 2009 Award of the Institute of Physical Chemistry of the Polish Academy of Sciences for the best paper of 2008, S.L. Randzio, A. Kutner, Metastability and instability of organic crystalline substances, *J. Phys. Chem. B*, **112**, 1435-1444 (2008).
- 2011 Team award, Gold Medal, "Innovative manufacturing process of tacalcitol – an active substance of an antipsoriatic drug", 60<sup>th</sup> Brussels INNOVA, Belgium.
- 2012 Team award, Bronze Medal, International Warsaw Invention Show IWIS2012 "A novel convergent synthesis of antiglaucomaPGF<sub>2α</sub> analogue - travoprost"
- 2016 Team award, Gold Medal, International Warsaw Invention Show IWIS2016 „Prasugrel – innovative technology of a drug product”.
- 2018 Team award, ERiNETInnovatorenPreis 2018, International TradeFair Ideas InventionsNew Products, IENA'2018, Nurnberg, Germany, „Molecularly imprinted polymers employing carbazole and thiophene monomers and their application as recognition layers in chemosensors of aripiprazole and human chorionic gonadotropin"

## Recent publications (2022)

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1. Jyoti, Renata Rybakiewicz-Sekita, Teresa Żółek, Dorota Maciejewska, Edyta Gilant, Katarzyna Buś-Kwaśnik, Andrzej Kutner, Krzysztof R. Noworyta, Włodzimierz Kutner, Cilostazol-imprinted polymer film-coated electrode as an electrochemical chemosensor for selective determination of cilostazol and its active primary metabolite, *Journal of Materials Chemistry B*, 2022, <https://doi.org/10.1039/d1tb02186a>, IF 6.331, MEN 140 points.
2. Karina Piątek, Andrzej Kutner, Dan Cacsire Castillo-Tong, Teresa Manhardt, Nadja Kupper, Urszula Nowak, Michał Chodyński, Ewa Marcinkowska, Enikő Kallay, Martin Schepelmann, Vitamin D Analogs Regulate the Vitamin D System and Proliferation in Ovarian Cancer Cells, *Int. J. Mol. Sci.* 2022, 23, 172. <https://doi.org/10.3390/ijms23010172>, IF 5.924, 140 points MEN.
3. Justyna Joanna Gleba, Dagmara Kłopotowska, Joanna Banach, Eliza Turlej, Karolina Anna Mielko, Katarzyna Gębura, Katarzyna Bogunia-Kubik, Andrzej Kutner, Joanna Wietrzyk, Polymorphism of VDR Gene and the Sensitivity of Human Leukemia and Lymphoma Cells to Active Forms of Vitamin D, *Cancers* 2022, 14, 387. <https://doi.org/10.3390/cancers14020387>, IF 6.639, MEN 140 points.

4. Monika Wanat, Maura Malinska, Andrzej Kutner, Krzysztof Woźniak, First experimental quantitative charge density studies of advanced intermediate of vitamin D analogues, *Molecules*, 2022, 27(6), 1757, <https://doi.org/10.3390/molecules27061757>, IF 4.412, 100 points MEN, the cover page of Issue 6 Vol 27.
5. Jyoti, Teresa Żołek, Dorota Maciejewska, Edyta Gilant, Elzbieta Gniazdowska, Andrzej Kutner, Krzysztof R. Noworyta, and Włodzimierz Kutner. Polytyramine Film-Coated Single-Walled Carbon Nanotube Electrochemical Chemosensor with Molecularly Imprinted Polymer Nanoparticles for Duloxetine-Selective Determination in Human Plasma. *ACS Sensors* 2022, <https://doi.org/10.1021/acssensors.2c00124>, <https://pubs.acs.org/action/showCitFormats?doi=10.1021/acssensors.2c00124&ref=pdf> IF 7.711; MEN 140 points, article graphical abstract on the cover page of the journal.
6. Justyna Joanna Gleba, Dagmara Kłopotowska, Joanna Banach, Karolina Anna Mielko, Eliza Turlej, Magdalena Maciejewska, Andrzej Kutner, and Joanna Wietrzyk. Micro-RNAs in Response to Active Forms of Vitamin D<sub>3</sub> in Human Leukemia and Lymphoma Cells. *Int. J. Mol. Sci.* 2022, 23(9), 5019; <https://doi.org/10.3390/ijms23095019>, IF 5.942, MEN 140 points.
7. Andrzej Kutner, Geoffrey Brown, Enikoe Kallay, Novel Strategies in the Development of New Therapies, Drug Substances, and Drug Carriers Volume I, *Int. J. Mol. Sci.* 2022, 23(12), 6635, <https://doi.org/10.3390/ijms23126635>, IF 5.924, 140 points MNiSW, Editorial.

***Reviewer for scientific journals***

*Bioorganic Chemistry, Molecules, Pharmaceuticals, International Journal of Molecular Sciences, Journal of Steroid Biochemistry Molecular Biology, Steroids*

