

Péter Nagy

Curriculum Vitae as of January 22, 2023

Contact

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Positions Held

2022- Acting Director, Chemistry Institute, Debrecne University
2017- Scientific Director at the National Institute of Oncology, Hungary
2013- Director of International Relations at the National Institute of Oncology, Hungary
2011- Head of the Department of Molecular Immunology and Toxicology at the National Institute of Oncology, Hungary
2021- Full Professor at Debrecen University, Hungary
2020- Full Professor at the University of Veterinary Medicine, Hungary
2019- Honorary Professor at Debrecen University, Hungary
2018- Visiting Professor at Semmelweis University, Hungary
2015- Honorary Associate Professor at Debrecen University, Hungary
2015- Honorary Senior Research Fellow at the University of Otago, Christchurch, Department of Pathology, Free Radical Research Group, New Zealand
2011-2014 Honorary Research Fellow at the University of Otago, Christchurch, Department of Pathology, Free Radical Research Group, New Zealand
2012- 2013 Deputy Director of International Relations at the National Institute of Oncology, Hungary
2010- 2011 Research Fellow at the University of Otago, Christchurch, Department of Pathology, Free Radical Research Group, New Zealand
2010 Invited Visiting Research Fellow at the University of Washington, Department of Medicine Division of Metabolism, Endocrinology and Nutrition, Seattle, USA
2008 - 2009 Visiting Research Fellow at the Swiss Federal Institute of Technology (ETH), Department of Chemistry, Zurich, Switzerland
2007 - 2009 Postdoctoral Fellow at the University of Otago, Christchurch, Department of Pathology, Free Radical Research Group, New Zealand
2004 - 2007 Postdoctoral Fellow at the University of Oklahoma, Department of Chemistry and Biochemistry, USA

Academic Achievements

2020 Fellow of The European Academy of Cancer Sciences
2017 Doctor of Science of the Hungarian Academy of Sciences
2012 Habilitation at Debrecen University
2004 June Ph.D. graduation at The Royal Institute of Technology (KTH), Stockholm, Sweden
2004 April Ph.D. graduation at Debrecen University (DU), Debrecen, Hungary
2003 Certificate in Environmental Monitoring (TUV Akademie, Germany)
2000 Master of Science in Chemistry, Debrecen University

Representative roles for NIO in EU Projects

- Member of the Scientific Committee of the European Code against Cancer
- Advisor of the EUHealthSupport consortium
- Hungarian delegate in the Scientific Council of WHO's International Agency for Research on Cancer (IARC)
- Accreditation and Designation Board member of the Organization of European Cancer Institutes (OECI)
- ERN EURACAN Steering Committee member
- WP5 workpackage Leader in the 'Innovative Partnership for Action Against Cancer — iPAAC'
- WP T3 Leader in the 'Using guidelines and benchmarking to Trigger social entrepreneurship solutions towards better patient-centred cancer care in central Europe — INTENT' project
- Institutional coordinator in the 'CHRODIS-PLUS: Implementing good practices for chronic diseases — CHRODIS-PLUS' project
- Institutional coordinator in the Joint Actions on Rare Cancers
- Institutional contact person in the European Reference Network Scheme for Rare Diseases.
- Accreditation Auditor for OECI
- WP5 Leader (Benchmark tools piloting) in the BenchCan project (Benchmarking Comprehensive Cancer Care and Cancer Care Pathways in Europe)
- Coordinator in the EurocanPlatform project (Structuring Translational Cancer Research in Europe)
- Participant and coordinator in the Transcan project (ERA-NET research grant mechanism for translational cancer research)
- WP6 leader in the UNCAN project

Honors

Member in Editorial Boards

- 2023- *Editor: Redox Biology Special Issue (Recent advances in sulfur biology and chemistry)*
- 2022- *Occasional editorial duties: Proceedings of the National Academy of Sciences*
- 2022- *Member of the Editorial Board: Redox Biochemistry and Chemistry*
- 2021- *Member of the Editorial Board: Molecular Oncology*
- 2020- *Member of the Editorial Board: Antioxidants and Redox Signaling*
- 2019- *Member of the Editorial Board: Journal of Biological Chemistry*
- 2016- *Review Editor: British Journal of Pharmacology*
- 2017- 2022 *Editor: Onkológia & Hematológia*
- 2011- *Member of the Associate Editorial Board: International Journal of Biochemistry and Molecular Biology*

Recent Grant Supports

- 2022 - National Research, Development and Innovation Fund
Researcher Initiated Research Project Grant
143769, Role: Co- Investigator
- 2022- ELKH-ÁTE
Laboratory of Redox Biology
15002, Role: Principal Investigator
- 2022- HORIZON-MISS-2021-UNCAN-01
4.UNCAN.eu (UNDERstanding CANcer)
Role: WP6 leader
- 2022- Thematic Excellence Program
Redox Tumorbiology
TKP2021-EGA-44, Role: Principal Investigator

- 2021- Hungarian National Laboratory
NLP-17, 2022-2.1.1-NL-2022-00010 National Tumorbiology Laboratory
Role: Principal Investigator
- 2020-2021 Thematic Excellence Program
Consortial Research Program entitled “Innovative treatments of breast cancers and melanoma”
TKP2020-NKA-26, Role: Principal Investigator
- 2020 - STAY - Sulfur amino acids, energy metabolism and obesity
EU Horizon 2020 Research and Innovation Programme
Role: Co-Investigator, Member of the Scientific Advisory Board
- 2019- National Research, Development and Innovation Fund
Establishment of a research laboratory for Prof. Elias Arnér at the National Institute of Oncology
ED_18-1-2019-0025, Role: Principal Investigator
- 2019- Thematic Excellence Program
Consortial Research Program entitled “Innovations in Breast Cancer Care”
TUDFO/51757/2019-ITM Role: Principal Investigator
- 2019-2020 JSPS International Fellowships for Research in Japan
To invite overseas researchers with excellent records for research achievements to collaborate with
Japanese colleagues in carrying out research through long-term visits
L19520
- 2018-2022 National Research, Development and Innovation Fund
Researcher Initiated Research Project Grant
K129286, Role: Principal Investigator
- 2017-2019 National Research, Development and Innovation Fund
Grant for Research Teams with Significant Achievements of Internationally Outstanding Impact
KH126766, Role: Principal Investigator
- 2016-2018 NIH R21
R21AG055022, Role: Co- Investigator
- 2013-2017 Hungarian National Science Foundation
Researcher Initiated Research Project Grant
K109843, Role: Principal Investigator
- 2018- 2021 ‘Innovative Partnership for Action Against Cancer — iPAAC’
801520, Role: Institutional coordinator
- 2017-2022 ERN EURACAN
Role: Steering Committee member
- 2017-2020 ‘CHRODIS-PLUS: Implementing good practices for chronic diseases — *CHRODIS-PLUS*’
761307, Role: Institutional coordinator
- 2017- 2020 ‘Using guidelines and benchmarking to Trigger social entrepreneurship solutions towards better
patient-centred cancer care in central Europe — INTENT’ project
CE1047, Role: Institutional coordinator
- 2016-2019 Joint Actions on Rare Cancers — JARC
724161, Role: Institutional coordinator

Important Invited or Contributed Lectures

- 2022 Reprogrammed Transsulfuration Promotes Tumor Progression via Tumor Specific Mechanisms
*Invited speaker The 12th International Conference on the Biology, Chemistry and Therapeutic Applications
of Nitric Oxide, The 22nd Annual Scientific Meeting of the Nitric Oxide Society of Japan, Sendai, Japan*

- 2022 Reprogrammed Transsulfuration Promotes Tumor Progression via Tumor Specific Mechanisms
Invited speaker and session chair at the EMBO Workshop 2022- Thiol oxidation in biology, Sant Feliu de Guixols, Spain
- 2022 Reprogrammed Transsulfuration Promotes Basal Like Breast Tumor Progression via Realigning Cellular Cysteine-persulfidation
Invited speaker at the 24th International Conference on Oxidative Stress Reduction, Redox Homeostasis & Antioxidants "Paris Redox 2022", Paris, France
- 2022 Reactive Sulfur Species in Redox Signaling
Invited speaker/session chair at the Thiol-Based Redox Regulation and Signaling (Gordon Research Conference), Castelldefels Spain
- 2022 Selenium dependence of Persulfidation-Mediated Protection and Control of Protein Functions
Invited speaker at the 2th International Symposium on Selenium in Biology and Medicine, Honolulu, Hawaii, USA
- 2021 Progress in understanding of the mode of action of 3-chymotrypsin-type protease enzyme inhibition
Speaker at the Day of Hungarian Science
- 2021 Although cysteine is not an essential amino acid, it is essential for the progression of basal breast tumors.
Speaker at the Day of Hungarian Science
- 2021 The role of reprogramming the transsulfurization pathways in the progression of basal subtype breast tumors through the control of protein functions by persulfation modifications
Speaker at the XXXIV. Congress of the Society of Hungarian Oncologists'
- 2021 Redox Biology in translational cancer research
Central-Eastern European Oncology meets Western-Northern-Southern European Oncology: Clinical Trial Activities International Conference
- 2021 Reprogrammed Transsulfuration Promotes Basal Like Breast Tumor Progression via Realigning Cellular Cysteine-persulfidation
Invited speaker at the SBio 2021 Meeting - Joint meeting for Plant and Human Sulfur Biology and Glucosinolates, Sevilla, Spanyolország
- 2021 Reprogrammed Transsulfuration Promotes Basal Like Breast Tumor Progression via Realigning Cellular Cysteine-persulfidation
Invited seminar at the Wake Forest School of Medicine, Winston-Salem, North Carolina, USA
- 2020 Invited speaker at the 11th International Meeting on the Biology, Chemistry and Therapeutic Applications of Nitric Oxide, Chicago, Illinois, USA
- 2020 Control of protein function through oxidation and reduction of persulfidated states
Invited speaker at the Baltic Redox Workshop 2020, Greifswald, Germany
- 2020 Mechanistic investigations for metabolic pathways of Reactive Sulfur Species
Invited speaker at the Gordon Research Conference on Oxygen Radicals, Ventura, California, USA
- 2019 Control of protein function through oxidation and reduction of persulfidated states
Invited speaker at the 1st International Conference on Persulfide and Sulfur Metabolism in Biology and Medicine, Sendai, Japan
- 2019 Persulfidation of cysteine residues govern protein function and provide protection during oxidative stress
Invited speaker at the Tsukuba Molecular Life Science Seminar, Tsukuba University, Tsukuba, Japan
- 2019 Control of protein function through oxidation and reduction of persulfidated states
Invited speaker at the Graduate School of Pharmaceutical Sciences, Tohoku University, Sendai, Japan
- 2019 Thioredoxin system-mediated persulfidation of Cys residues controls protein function and protects them from oxidative stress
Invited speaker at the Fukuoka University, Fukuoka, Japan
- 2019 Control of protein function through oxidation and reduction of persulfidated states
Invited speaker at the National Cancer Center Japan, Tokyo, Japan
- 2019 Control of protein function through oxidation and reduction of persulfidated states
Invited speaker at the Osaka Prefecture University Osaka, Osaka, Japan
- 2019 Control of protein function through oxidation and reduction of persulfidated states
Invited speaker at the Hirosaki University, Hirosaki Japan
- 2019 Control of protein function through oxidation and reduction of persulfidated states
Invited speaker at the Doshisha University Osaka, Osaka, Japan

- 2019 Redox-tumorbiology; an emerging field in cancer research
Speaker at the Regional Conference on Partnership and Cooperation in Oncology, Budapest, Hungary
- 2018 Speciation of reactive sulfur species: Do we have any clue about what's inside the cell?
Invited Speaker at the 4th meeting of the study group for redox biology of the German Society for Molecular Biology and Biochemistry, Berlin, Germany
- 2018 Speciation of reactive sulfur species: do we have any clue about what's inside the cell?
Invited speaker at the Thiol-Based Redox Regulation and Signaling (Gordon Research Conference), Spain
- 2018 Reactive sulfur species: mechanistic considerations for their regulatory functions in redox biology
Invited Speaker and session chair/organizer of the Redox Biology section at the 2018 FEBS conference, Prague, Czech Republic
- 2018 Dynamic redox cycling of hydrogen sulfide and polysulfide species could represent an important regulatory element in sulfur biology
Invited Speaker and session chair/organizer at the 2018 SFRRI, Lisboa, Portugal
- 2018 Speciation of reactive sulfur species: do we have any clue about what's inside the cell?
Invited Speaker and member of the scientific advisory board at the 5th World Congress on Hydrogen Sulfide in Biology and Medicine, Toronto, Canada
- 2017 Dynamic redox cycling of hydrogen sulfide and polysulfide species could represent an important regulatory element in sulfur biology
Invited Speaker organizer of the Plant and Human Sulfur Biology Conference 2017, Balatonfüred, Hungary
- 2017 Roles of the thioredoxin and glutathione systems in reduction of inorganic- and Cys-polysulfide spec
Invited Speaker at the SE2017: The 11th International Symposium on Selenium in Biology and Medicine and The 5th International Conference on Selenium in the environment and Human health, Stockholm, Sweden
- 2017 Hydrogen Sulfide Signaling
Invited Lecture at the Redox regulation, oxidative stress and selenoproteins - Summer Graduate Course, Karolinska Institutet, Stockholm, Sweden
- 2017 Molecular models of hydrogen sulfide-mediated protection against oxidative stress
Invited Speaker at 90th Annual Meeting of Japanese Society for Bacteriology, Sendai, Japan
- 2016 Some aspects of sulfur biology from a mechanistic chemist's perspective
Invited Seminar at the Center for Molecular Medicine Cologne University Koeln, Germany
- 2016 Chemical aspects of sulfane sulfur biology
Invited Speaker at the Tohoku University Graduate School of Medicine, Sendai, Japan
- 2016 Advances and challenges in the field of H₂S biology
Invited Speaker at the Dojindo Inc. HQs in Kumamoto, Japan
- 2016 Bio-chemical aspects of thiol oxidation
Invited Seminar Kyoto University, Kyoto, Japan
- 2016 Molecular pathways in persulfide biology
Invited Speaker at the 9th International Conference on the Biology, Chemistry, and Therapeutic Applications of Nitric Oxide held jointly with the 16th Annual Scientific Meeting of the Nitric Oxide Society of Japan, Sendai, Japan
- 2016 Hydrogen sulfide, the new kid on the block in redox signaling
Invited Speaker at the Society for Free Radical Research-Europe, Budapest, Hungary
- 2016 Insights into the molecular pathways of persulfide-mediated redox signaling
Invited Speaker at the 4th International Conference on the Biology of Hydrogen Sulfide, Napoli, Italy
- 2015 Protein persulfides: Insights into the molecular mechanisms of H₂S signaling
Invited plenary lecture at the Joint Meeting of the Societies for Free Radical Research Australasia and Japan, Christchurch, New- Zealand
- 2015 Mechanistic chemical perspective of thiol redox biology
Invited Speaker at the Thiol-based redox switches in life sciences ESF-EMBO conference, Sant Feliu de Guixols, Spain
- 2015 Superoxide-mediated post-translational modification of tyrosine residues
Invited Speaker at the Society for Free Radical Research- Europe meeting Stuttgart, Germany
- 2015 Hydrogen sulfide and redox signaling
Invited Speaker at the "Redox Regulation, Oxidative Stress, and Selenoproteins." Medical University of South Carolina in Charleston, S.C.

- 2015 Mechanistic Chemical Perspective of Hydrogen Sulfide Signaling
Invited Speaker at the 3rd European Conference on the Biology of Hydrogen Sulfide, Athens, Greece
- 2015 Mechanistic Chemical Perspective of Hydrogen Sulfide Signaling
Invited Speaker at the „RISE Enhancing Biomedical Sciences and Biomedical Engineering in Science and Technology” Mayagüez, Puerto Rico
- 2015 Redox biochemistry of thiol proteins and hydrogen sulfide
Invited Seminar LSU Health Shreveport, USA,
- 2014 Mechanistic consideration of sulfide- versus polysulfide-mediated signaling events from a chemist's perspective
Invited Speaker at the Third International Conference on the Biology of Hydrogen Sulfide and COST meeting, Kyoto, Japan
- 2014 Tools and techniques for gasotransmitters detection; working with gasotransmitters
Chemical aspects of gasotransmitter signaling
Invited Trainer at the Training School on Gasotransmitters Biology and Chemistry, Capri, Italy
- 2014 Kinetics and mechanisms of thiol redox reactions in relation to their biological functions
Invited Talk at the Redox Biology Seminars, Heidelberg DKFZ, Germany
- 2013 Redox Proteomics at the National Institute of Oncology;
Molecular mechanisms of BRAF V600E inhibition and acquired resistance to inhibitors of the MAPK pathway in melanoma malignum. Potential roles of Redox Regulation.
2 Invited lecture at the Hungarian Oncologists' Society's Annual Scientific Chemotherapy Congress
- 2013 Kinetics and mechanisms of thiol oxidation in biological systems
Lecture at the Debrecen Colloquium on Inorganic Reaction Mechanisms 2013 Conference, Debrecen, Hungary
- 2013 Scavenging of doxorubicin-induced peroxide species by peroxiredoxin 2 in red blood cells
Lecture at the Eu-ROS COST meeting, Budapest, Hungary
- 2013 Chemical aspects of hydrogen sulfide measurements in physiological samples
Invited lecture at the European Network on Gasotransmitters COST meeting, Athens, Greece
- 2012 Kinetics and Mechanisms of Thiol Oxidation in Biological Systems
Invited plenary lecture at the Natural Products and Related Redox Catalysts: Basic Research and Application in Medicine and Agriculture, Aveiro, Portugal
- 2012 Some Redox- and Coordination-Chemical Properties of Hydrogen Sulfide in Relation to its Biological Activities
Invited lecture at the European Network on Gasotransmitters COST meeting, Budapest, Hungary
- 2012 Redox Chemical Studies of Biological Thiols
Invited seminar at Saarbrücken University, Saarbrücken, Germany
- 2012 Interactions of Hydrogen Sulfide with Neutrophil-Derived Oxidants
Invited lecture at the First EU Conference on the Biology of Hydrogen Sulfide, Smolnice, Slovak Republic
- 2012 Reactive Oxygen Species in Cancer Research
Invited lecture at the Hungarian Oncologists' Society's Annual Scientific Chemotherapy Congress
- 2011 Novel Mechanisms for Superoxide Toxicity
Invited seminar at Debrecen University, Department of Inorganic and Analytical Chemistry Debrecen
- 2010 Mechanistic Investigation of the High Reactivity and Specificity of Peroxiredoxins with Peroxides
Invited speaker at the 19th Annual Meeting of the Society for Free Radical Research Australasia, Akaroa, New Zealand
- 2010 Chemical Aspects of Thiol Oxidation in Biology
Invited seminar at the Puget Sound Blood Center, Seattle, WA, USA
- 2010 The Jekyll and Hide Roles of Superoxide in vivo: Mechanistic Investigation of Superoxide Mediated Tyrosine Modifications on Peptides and Proteins
Invited seminar at the University of Washington, Department of Medicine, Seattle, WA, USA
- 2010 Addition of superoxide to tyrosyl radicals in peptides and proteins; a potential route for superoxide toxicity
Selected speaker at the Oxygen Radicals Gordon Research Conference, Ventura, CA, USA
- 2009 Rapid reaction of superoxide with insulin-tyrosyl radical results in hydroperoxide formation, a kinetic study.
Selected speaker at the 5th Joint Meeting of the Society for Free Radical Research (Australia and Japan) with Mutagenesis and Experimental Pathology Society of Australia, Sydney, Australia

- 2009 Neutrophil mediated oxidation of opioid peptides
Invited speaker at the Brain Health & Repair Research Centre Conference, Dunedin, New Zealand
- 2009 Mechanisms of thiol oxidation in biology. A chemist's perspective
Invited seminar at the University of Otago, Dunedin, Department of Chemistry, New Zealand
- 2009 Redox chemistry of neutrophil-derived oxidants
Invited seminar at the University of Otago, Dunedin, Department of Chemistry, New Zealand
- 2009 Superoxide mediated radical reactions of opioid peptides and proteins
Invited seminar at the University of Otago, Dunedin, Department of Chemistry, New Zealand
- 2008 Radical targets for superoxide toxicity
Invited seminar at The Swiss Federal Institute of Technology (ETH), Department of Chemistry, Zurich
- 2007 Neutrophils, our in vivo cleaning staff, use chlorine bleach to disinfect
Invited seminar at Debrecen University, Department of Inorganic and Analytical Chemistry Debrecen
- 2007 Thiocyanate is an Efficient Endogenous Scavenger of the Putative Eosinophilic Killing Agent Hypobromous Acid
Invited speaker at the 5th International Meeting on Human Peroxidases, Akaroa, New Zealand
- 2005 Reactive Sulfur Species: Kinetics and Mechanisms of the Oxidation of Cystine Derivatives by Hypochlorous Acid
Invited speaker at the 57th Southeast/61st Southwest Joint Regional Meeting of the American Chemical Society, Memphis, Tennessee, USA

Awards

- 2022 The Research Centre of the National Institute of Oncology has been awarded the status of Excellent Research Site (4 May 2022 - 30 June 2027) of MTA (Hungarian Academy of Sciences)
- 2021 As a result of the restructuring activities, in 2021, The National Institute of Oncology Research Center was awarded the title of "TOP50 - Excellent Research Infrastructure"
- 2021 The National Tumor Biology Laboratory was established within the National Laboratories Programme. The National Laboratories Programme supports 18 Hungarian and internationally recognized scientific areas. Out of these 18 laboratories, a total of 4 laboratories have received an excellent rating, including the National Tumor Biology Laboratory
- 2019 Bolyai Plakett (Recognition of the Hungarian Academy of Sciences for the best scientific achievement among János Bolyai Research Scholars)
- 2011 ESF-EMBO Young Investigator Travel Award to the "Glutathione and Related Thiols in Living Cells ESF-EMBO symposium".
- 2006 Young Investigator Travel Award to the "5th International Meeting on Human Peroxidases"
- 2001 Knut and Alice Wallenberg's Foundation Award
- 1999 Second place at the XXIV. National Science Competition for Undergraduate Students, Hungary
- 1993 Finalist of the National Chemistry Competition for high school students, Hungary

Scholarships

- 2019-2020 JSPS International Fellowship for Research in Japan
To invite overseas researchers with excellent records for research achievements to collaborate with Japanese colleagues in carrying out research through long-term visits.
- 2015 János Bolyai Research Scholar of the Hungarian Academy of Sciences
- 2011-2015 Marie Curie International Reintegration Grant Fellow
- 2003 Ph.D. scholarship at The Royal Institute of Technology (KTH), Stockholm, Sweden
- 2001 Exchange Ph.D. student at KTH for 1 semester (Socrates Erasmus scholarship)
- 1999 - 2000 Exchange undergraduate student at KTH for 2 semesters (Socrates Erasmus scholarship)
- 1998 Exchange undergraduate student at KTH for 1 semester (Grant for talented young scientists, sponsored by Schering Plough pharmaceutical company)

Foreign Languages

- Hungarian:* Native language
- English:* Fluent, language of professional activities

Swedish: Conversational level (Elementary and Advanced Beginners courses and certificates at KTH)
German: Conversational level (Elementary course and certificate at DU)

Organizational, Advisory or Chair Roles at Meetings

2022 Chief Organizer at the 6th World Congress on Hydrogen Sulfide in Biology and Medicine
2021 Organizer at the XXXIV. Society of Hungarian Oncologists' Congress
2021 Organizer at the Central-Eastern European Oncology meets Western-Northern-Southern European Oncology: Clinical Trial Activities International Conference
2020 Discussion leader at the Gordon Research Conference on Thiol-Based Redox Regulation & Signaling
2019 Organizer at the XXXIII. Society of Hungarian Oncologists' Congress
2019 Co-organizer at the 1st International Conference on Persulfide and Sulfur Metabolism in Biology and Medicine
2019 Session chair and organizer at the FAMÉ, Budapest
2018 Session chair Nitric Oxide Society meeting dedicated to the 20th anniversary of the 1998 Nobel Prize in Medicine for the discovery of NO as a signaling molecule, Oxford, England
2018 Chair and organizer of the Redox Biology section at the 2018 FEBS conference
2018 Session chair/organizer at the 2018 SFRRRI, Lisboa, Portugal
2018 Member of the International Advisory Board at the 5th World Congress on Hydrogen Sulfide in Biology and Medicine
2017 Member of the Scientific Advisory Board and local organizer at the Plant and Human Sulfur Biology Conference
2017 Co-Chair and organizer of the „Kékgolyó napok” seminar series
2016 Member of the International Scientific Committee of the 9th International Conference on the Biology, Chemistry, and Therapeutic Applications of Nitric Oxide held jointly with the 16th Annual Scientific Meeting of the Nitric Oxide Society of Japan
2016 Member of the International Advisory Board at the 4th International Conference on the Biology of Hydrogen Sulfide
2016 Member of the International Scientific Committee of the Society for Free Radical Research-Europe
2015 Member of the Scientific Organizing Committee of the XXXI. National Meeting of Hungarian Oncologists
2013 2nd European Conference on the Biology of Hydrogen Sulfide, Chair and advisor of the "Cancer and Therapeutic potential of H₂S manipulation" section

Society Memberships

2021- Society of Hungarian Oncologists' – Founding member of the Experimental Oncology and Pathology Section
2021- Society of Hungarian Oncologists' – Council member of the Oncodermatology Section
2020- Institutional Expert for Rare Diseases at the National Public Health Center
2020- Hungarian delegate in the European Partnerships under Horizon Programme for Research and Innovation
2020- Professional Association of Tissue- and Cell bank, regenerative medicine - Secretary
2020- Medical Research Council – Scientific Research Ethics Committee member
2020- Society for Free Radical Research -Europe
2020- Society for Redox Biology & Medicine
2020- IARC Scientific Council member
2018- European Society for Medical Oncology
2017- European Association for Cancer Research- Hungarian Representative
2017- Society of Hungarian Oncologists' Secretary-General
2012 - European Network on Gasotransmitters BM-1005 COST Management committee
2013 - EU-ROS BM-1203 COST Management committee substitute

2012-	Society of Hungarian Young Oncologists
2011-	Society of Hungarian Oncologists'
2008 -	Society for Free Radical Biology and Medicine, USA
2007 -	Society for Free Radical Research, Australia
2007 - 2008	Society for Biochemistry and Molecular Biology, New Zealand
2006 - 2007	American Association for the Advancement of Science
2005 -	American Chemical Society
2001 -	Alumni for Europe

Evaluation of proposals, PhD theses and applications for professorships and promotions

- NIH, ERC, Horizon2020, Horizon Europe, DKFZ, Johns Hopkins University, University of Otago, Sidney University
- Teaching international students and senior researchers from Karolinska University, University of Dusseldorf, University of Montana, Sendai University, University of Bratislava, Charles University

Research Output

Research Interests

Research in my Laboratory

The major area of our scientific interest is centered on reprogramming of metabolic and cellular signaling pathways in cancer. The primary focus of our research activities lies within redox regulation of protein functions, antioxidant defense mechanisms and alterations of transulfuration pathways. These processes play critical roles in oncogenesis, tumor progression, immune-response/suppression and in the development of resistance to currently applied therapies. Therefore, better understanding the underlying fundamental mechanisms behind the observed alterations in these processes in cancer vs normal vs immune cells will likely lead to novel and more effective therapeutic interventions.

Activities in EU Research Consortia

I represent the National Institute of Oncology as the coordinator in a number of EU projects (see above). Our wide scale research activities are dedicated to improving cancer care in a patient centered pan-European manner.

Publications

*Corresponding author

Book Chapters

6. Dorottya Garai, Zoltán Pálinkás, József Balla, Anthony J. Kettle, **Péter Nagy***
Measurements for sulfide-mediated inhibition of myeloperoxidase activity
In: Bełtowski J. (eds) Vascular Effects of Hydrogen Sulfide. **Methods in Molecular Biology**, vol 2007. Humana, New York, NY (2019) 179-203. [PubMed Link](#)
5. Éva Dóka, Elias S. J. Arnér, Edward E. Schmidt, **Péter Nagy***.
ProPerDP, a Protein Persulfide Detection Protocol
In: Bełtowski J. (eds) Vascular Effects of Hydrogen Sulfide. **Methods in Molecular Biology**, vol 2007. Humana, New York, NY (2019) 51-77. [PubMed Link](#)

4. Christopher Kevil, Miriam M. Cortese-Krott, **Péter Nagy**, Martin Feelisch, Csaba Szabo
Cooperative interactions between NO and H₂S: chemistry, biology, physiology, pathophysiology
Nitric Oxide Biology and Pathobiology 3rd Edition Ignarro L.J., Ed. Elsevier: (2017) 57-83 Invited chapter.
3. **Péter Nagy***
Mechanistic Chemical Perspective of Hydrogen Sulfide Signaling
Methods in Enzymology, Hydrogen Sulfide in Redox Biology Part A & B (2015) 554, 3-29. Invited chapter. [PubMed Link](#)
2. **Péter Nagy***, Christine C. Winterbourn
Redox chemistry of biological thiols
Advances in Molecular Toxicology, Fishbein, J.C., Ed. Elsevier: Amsterdam, The Netherlands, (2010), Vol. 4, pp. 183-222. Invited review.
1. **Péter Nagy**, Julie D. Becker, Rachael C. Mallo, Michael T. Ashby
The Jekyll and Hyde Roles of Cysteine Derivatives During Oxidative Stress
New Biocides Development: The Combined Approach of Chemistry and Microbiology, Zhu, P., Ed. ACS Press: Washington, D.C., (2007), pp. 193-212.

Peer Reviewed Research Articles

94. Andrea Domán, Éva Dóka, Dorottya Garai, Virág Bogdándi, György Balla, József Balla, **Péter Nagy***
Interactions of reactive sulfur species with metalloproteins
Redox Biology (2023) accepted
93. Anke Wind, Simon Oberst, Willien Westerhuis, Harriet Blaauwgeers, Gunnar Sæter, Paolo de Paoli, **Péter Nagy**, Jean-Benoit Burron, Eva Jolly, József Lovey, Wim van Harten
Evaluating Comprehensive Cancer Networks; a review of standards and evaluation methods for care networks to inform a comparison with the OECI comprehensive cancer network standards
Acta Oncologica (2023) ahead of publication
92. András Wéber, Les Mery, **Péter Nagy**, Csaba Polgár, Freddie Bray, István Kenessey
Evaluation of data quality at the Hungarian National Cancer Registry, 2000–2019
Cancer Epidemiology (2023) 82:102306 [PubMed Link](#)
91. Viktor Kožich, Bernd C Schwahn, Jitka Sokolová, Michaela Křížková, Tamas Ditroi, Jakub Krijt, Youssef Khalil, Tomáš Křížek, Tereza Vaculíková-Fantlová, Blanka Stibůrková, Philippa Mills, Peter Clayton, Kristýna Barvíková, Holger Blessing, Jolanta Sykut-Cegielska, Carlo Dionisi-Vici, Serena Gasperini, Ángeles García-Cazorla, Tobias B Haack, Tomáš Honzík, Pavel Ješina, Alice Kuster, Lucia Laugwitz, Diego Martinelli, Francesco Porta, René Santer, Guenter Schwarz, **Péter Nagy***
Human ultrarare genetic disorders of sulfur metabolism demonstrate redundancies in H₂S homeostasis
Redox Biology (2022) 58, 102517. [PubMed Link](#)
90. Ágnes Czikora, Katalin Erdélyi, Tamás Ditrói, Noémi Szántó, Eszter Petra Jurányi, Szilárd Szanyi, József Tóvári, Tamás Strausz, **Péter Nagy***
Cystathionine B-Synthase Overexpression Drives Metastatic Dissemination in Pancreatic Ductal Adenocarcinoma Via Inducing Epithelial-to-Mesenchymal Transformation of Cancer Cells
Redox Biology (2022) 57:102505. [PubMed Link](#)
89. Tamás Gáll, **Péter Nagy**, Dorottya Garai, László Potor, György Jázon Balla, György Balla, József Balla,
Overview on hydrogen sulfide-mediated suppression of vascular calcification and hemoglobin/heme-mediated vascular damage in atherosclerosis
Redox Biology (2022) 57:102504. [PubMed Link](#)
88. Eric Solary , Patricia Blanc, Michael Boutros, Charis Girvalaki, Franco Locatelli, Rene H Medema, **Péter Nagy**, Josep Tabernero
UNCAN.eu, a European initiative to UNDERstand CANcer
Cancer Discovery (2022) CD-22-0970. [PubMed Link](#)

87. Parrag Petra, Wéber András, Liskay Gabriella, **Nagy Péter**, Kásler Miklós, Polgár Csaba, Kenessey István
A melanóma hazai morbiditási és mortalitási helyzete a XXI. század első két évtizedében
Magyar Onkológia (2022) 66, 94-99. [PubMed Link](#)
86. Kenessey István, Wéber András, Szilágyi István, **Nagy Péter**, Polgár Csaba, Kásler Miklós
Az orvosi kódtárak gyakorlati alkalmazása az onkológiában – szakmai útmutató a Nemzeti Rákregiszter tapasztalatai alapján
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