Attachment no 4

List of scientific or artistic achievements which present a major contribution to the development of a specific discipline

Elżbieta Wieczorek, PhD

ORCID: 0000-0003-1420-1439

Department of Biochemistry,
Molecular Biology and Biotechnology

Wrocław University of Science
and Technology

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1. INFORMATION ON SCIENTIFIC OR ARTISTIC ACHIEVEMENTS SET OUT IN ART. 219 PARA 1. POINT 2 OF THE ACT

1. Scientific monograph, pursuant to art. 219 para 1. point 2a of the Act

I do not submit monograph as an achievement.

2. Cycle of scientific articles related thematically, pursuant to art. 219 para 1. point 2b of the Act

2a. The first achievement - a series of articles entitled:

"Exploring new properties and relationships between the structure and function of human transthyretin in the context of disease pathogenesis and potential therapeutic strategies"

The cycle consists of five experimental publications and one review paper, summarizing and presenting the obtained results on the background of literature reports concerning human transthyretin (TTR). Both the experimental and review articles show TTR in a perspective of the relationship between the structure and function, in relation to the pathogenesis processes in which TTR participates. In this comprehensive project, I did the vast majority of the scientific tasks from the formulation of the research topic, to designing and performing most of the experiments, data analysis and drawing conclusions. I am the first and corresponding author of all articles. My detailed contributions are listed under the title of each paper.

[P_11] **Wieczorek, E.**; Kędracka–Krok, S.; Sołtys, K.; Jankowska, U.; Hołubowicz, R.; Seliga, J.; Ożyhar, A. Is Transthyretin a Regulator of Ubc9 SUMOylation? *PLoS ONE* 2016 Aug 8;11(8). doi: 10.1371/journal.pone.0160536
IF_{2016} = 2.806, **$MNiSW/MEiN_{2016}$ = 35**

- *Carrying out literature studies concerning TTR and the facilitated sumoylation system, design of the general concept of the project, the choice of the methods and experimental conditions, the detailed analysis and evaluation of the results of all experiments, including the interpretation of the data based on the literature studies, and drawing the final conclusions.*
- *Preparation of the majority of the expression constructs for the facilitated sumoylation system in eukaryotic cells (UFDS) as well as constructs for expression of recombinant TTR in the bacterial system, purification and verification of preparation purity of recombinant TTR, performance of all transfection experiments in HEK 293 cell line and SDS-PAGE and Western blotting experiments.*
- *Preparation of the samples and planning of the experimental conditions and data interpretation of ultracentrifugation and mass analysis experiments.*
- *Writing, editing, and proofreading of the manuscript (including co-editing the sections on mass spectrometry) and preparation of all figures.*

[P_12] **Wieczorek, E.**; Chitruń, A.; Ożyhar, A. Destabilised human transthyretin shapes the morphology of calcium carbonate crystals. Biochim. Biophys. Acta - Gen. Subj. 2019, 1863, 313–324. doi:10.1016/j.bbagen.2018.10.017
IF$_{2019}$ =3.422, MNiSW/MEiN$_{2019\text{-}2021}$ = 100

- *Carrying out literature studies concerning the processes of biomineralization, designing the project objectives and methods of its realization, designing the general experimental concept, as well as detailed planning of experimental conditions, analysis and interpretation of the results of each experiment and drawing final conclusions based on the obtained data and literature studies.*
- *Preparation of the expression constructs, the expression in the bacterial system and purification of various aged preparations of recombinant TTR.*
- *Choosing the experimental conditions and participation in the purification of the native TTR, supervision and co-participation in the performance of biomineralization tests, microscopic analyses, including Scanning Electron Microscopy analyses and Raman spectra.*
- *Writing, editing and proofreading of the manuscript and preparing all figures.*

[P_13] **Wieczorek, E.**; Kędracka-Krok, S.; Bystranowska, D.; Ptak, M.; Wiak, K.; Wygralak, Z.; Jankowska, U.; Ożyhar, A. Destabilisation of the structure of transthyretin is driven by Ca^{2+}. Int. J. Biol. Macromol. 2021, 166, 409–423. doi:10.1016/j.ijbiomac.2020.10.199
IF$_{2021}$= 8.025, MNiSW/MEiN$_{2019\text{-}2021}$ = 100

- *Carrying out literature studies on calcium metabolism and the effect of metal ions on protein structure, designing the project objectives and methods of its realization as well as experimental design including detailed planning of the experimental conditions, analysis and interpretation of the results and drawing the conclusions from the obtained results based on the literature studies.*
- *Expression in the bacterial system and purification of a subset of recombinant TTR preparations, performing and processing the results of the following experiments: ANS binding assay, precipitation assay, Ca^{2+} binding assay using fluorescence probe, fluorescence measurements, circular dichroism measurements and the analysis and comparison of the crystallographic structures of TTR.*
- *Designing conditions and performing preliminary molecular filtration and S-trapping experiments, samples preparation and participation in purification of some of the recombinant TTR preparations, participation in planning and interpretation of data obtained in ultracentrifugation, Isothermal Titration Calorimetry, Differential Scanning Calorimetry and Mass Spectrometry experiments.*
- *Writing, editing and proofreading of the manuscript, including the sections of the manuscript concerning the analysis and discussion of the ultracentrifugation and mass spectrometry results, and preparation of figures (Figure 1 was prepared with contribution of Dr. Dominika Bystranowska).*

[P_14] **Wieczorek, E.**; Ożyhar, A. Transthyretin: From structural stability to osteoarticular and cardiovascular diseases. *Cells* 2021 Jul 13;10(7):1768. doi:10.3390/cells10071768
IF$_{2021}$ = 7.666, MNiSW/MEiN$_{2019\text{-}2021}$ = 140

- *Designing the concept of the complex, multidimensional model of the relationships linking the structural stability of TTRs and the factors destabilizing the structure of the TTR to the*

processes of pathogenesis of various diseases and conducting literature studies on the molecular basis of the discussed diseases.

- *Writing, editing and proofreading the manuscript, preparing the model figure, designing and preparing the tables.*

[P_15] **Wieczorek, E**.; Bezara, P.; Ożyhar, A. Deep blue autofluorescence reveals the instability of human transthyretin. Int. J. Biol. Macromol. 2021, 191, 492–499. doi:10.1016/j.ijbiomac.2021.09.107
IF$_{2021}$= 8.025, MNiSW/MEiN$_{2019\text{-}2021}$ = 100

- *Performance of pilot set of fluorescence measurements of TTR and discovery of a new autofluorophore in TTR.*
- *Carrying out literature studies on deep blue autofluorescence and fluorescent properties of proteins, designing the project objectives and its realization, developing the experimental design, including planning of the experimental conditions, analysis and interpretation the results of all experiments, as well as the overall conclusions of the results based on the literature studies.*
- *Expression in bacterial system and purification of the recombinant TTR, performance of fluorescence spectra, S-trapping experiments, molecular filtration, SDS-PAGE and electrophoresis under native conditions.*
- *Supervision and participation in the performance of aggregation assay and ANS binding assay.*
- *Writing, editing and proofreading of the manuscript and preparation of figures (Figure 2 was prepared with contribution of student Patrycja Bezara).*

[P_16] **Wieczorek, E**.; Wygralak, Z.; Kędracka-Krok. S, Bezara, P.; Bystranowska, D.; Dobryszycki, P.; Ożyhar. A. Deep blue autofluorescence reflects the oxidation state of human transthyretin. Redox Biol. 2022 Aug 9;56:102434. doi: 10.1016/j.redox.2022.102434
IF$_{2021}$ = 10.787, MNiSW/MEiN$_{2019\text{-}2021}$ = 140

- *Carrying out literature studies concerning the effects of redox conditions on the structure, function and fluorescence properties of proteins, development of the project objectives and methods of its realization, developing the experimental design including detailed planning of the experiments, analysis and interpretation of the results of all experiments.*
- *Expression in the bacterial system and purification of some of recombinant TTR preparations and performance of the fluorescence spectra (except the spectra presented in Figure 1), TTR light exposure and analysis using SDS-PAGE, elaboration of the conditions and performance of the first series of molecular filtration and S-trapping experiments,*
- *Participation in the purification of the other TTR preparations, supervision in preparation of TTR samples, planning the experimental conditions and data analysis of molecular filtration and mass spectrometry experiments.*
- *Writing, editing and proofreading of the manuscript and preparation of figures including the graphical abstract.*

The total Impact Factor (IF) of the listed publications, according to the **Journal Citation Report (JCR)**, taking into account the year of publication, is **40.731**.

The total number of points for the listed publications, according to the lists of scientific journals scored by the **MNiSW/MEiN** (Ministry of Science and Higher Education, pol. *Ministerstwo Nauki i Szkolnictwa Wyższego,* **MNiSW**, presently Ministry of Education and Science, pol. *Ministerstwo Edukacji i Nauki*, **MEiN**), appropriate for the year of publication, is **615**.

2b. The second achievement - a series of articles entitled:

"Study of the regulation of gene transcription in *Homo sapiens*"

The cycle includes three experimental articles concerning proteins involved in the regulation of the process of gene transcription in *Homo sapiens*. The research was carried out in two different projects. The first project, carried out at IGBMC (*Institut de Genetique et de Biologie Moleculaire et Cellulaire*) in France, resulted in the discovery of a non-canonical complex containing TAF30 - one of the subunits of the general transcription factor TFIID. The other project, carried out at VCU (*Virginia Commonwealth University*) in the USA, concerned the identification of the repressor (ZBP-89) and the activator (SP1) of the human vimentin gene. Within each of these research topics, I performed most of the experiments, including the choice of experimental conditions and the analysis and interpretation of the results. I am the first author of two papers and the second author of the third paper. My detailed contributions are listed under the title of each article.

[P_4] **Wieczorek, E.;** Brand, M.; Jacq, X.; Tora, L. Function of TAF(II)-containing complex without TBP in transcription by RNA polymerase II. Nature. 1998 May 14;393(6681):187-91. doi: 10.1038/30283
IF_{1998} = 28.833

- *Designing purification procedure and immunoprecipitation conditions, especially elution conditions, of complexes containing TAF30, identification of protein components of complexes by SDS-PAGE and Western blotting analysis, discovery of TBP-free complexes containing TAFs, performing the first in vitro transcription assays, expression and purification of recombinant TAF30 in a bacterial system, preparation of complexes containing TAF30 for structural analyses (which were not included in this publication), co-mentoring of PhD student Majorie Brandt.*
- *Planning the conditions of individual experiments, interpreting the results and participating in the discussion of the results with the principal investigator (prof. Laszlo Tora).*

[P_5] Izmailova, E.S.; **Wieczorek, E.;** Perkins, E.B.; Zehner, Z.E. A GC-box is required for expression of the human vimentin gene. Gene. 1999 Jul 22;235(1-2):69-75. doi: 10.1016/s0378-1119(99)00209-7
IF_{1999} = 2.258

- *Performing the first transient transfection assays and finding that the GC-box element in promotor region of human vimentin gene is required for vimentin expression.*
- *Preparing nuclear extract from HeLa cells and performing EMSA (Electromobility Shift Assay).*

[EW_6] **Wieczorek, E.**; Lin, Z.; Perkins, E.B.; Law, D.J.; Merchant, J.L.; Zehner, Z.E. The zinc finger repressor, ZBP-89, binds to the silencer element of the human vimentin gene and complexes with the transcriptional activator, Sp1. J Biol Chem. 2000 Apr 28;275(17):12879-88. doi: 10.1074/jbc.275.17.12879
IF_{2000} = 7.368

- *Expression in the bacterial system and purification of recombinant ZBP-89, performing all EMSA assays, performing crosslinking, Southwestern blotting, coimmunoprecipitation and affinity chromatography experiments. Contribution to the identification of two regulatory elements in the human vimentin promoter (performing transient transfection assays).*
- *Planning the conditions of individual experiments, interpreting the results and the discussion of the results with the principal investigator (prof. Zendra Zehner).*
- *Writing the version of the manuscript which was corrected by prof, Zendra Zehner and drawing the figures.*

The total IF of the listed publications according to JCR, taking into account the year of publication is equal to **38.459**.

3. List of completed original project, engineering and design, technological or artistic achievements, pursuant to art. 219 para 1. point 2c of the Act.

I do not submit project implementation as an achievement.

II. INFORMATION ON SCIENTIFIC OR ARTISTIC ACTIVITY

1. List of published scientific monographs (including the monographs not mentioned in section I.1)

I am not the author of the monograph.

2. List of published chapters in scientific monographs

„Enzyme Kinetics”: chapter in Physical Chemistry. T. 4, Physical and chemical laboratory. Warsaw: Wydawnictwo Naukowe PWN, 2013. XVII, 843 p

3. Information about membership in editorial boards preparing scientific monographs for publication

I am not a member of the editorial board of the scientific monograph.

4. List of articles published in scientific journals (including the articles not mentioned in section I.2)

A list of articles published prior to obtaining a doctoral degree
(Articles not listed in point I.2 are marked with an asterisk)*

1. *****[P_1] **Wieczorek, E.**; Kochman, M. Conformational change of the haemolymph juvenile-hormone-binding protein from Galleria mellonella (L). ***Eur J Biochem***. 1991 Oct 15;201(2):347-53. doi: 10.1111/j.1432-1033.1991.tb16292.x
   IF 3.171

2. *****[P_2] Kochman, M,; **Wieczorek, E**. Molecular mechanism of the juvenile hormone action. ***Acta Biochim Pol***. 1991;38(4):393-405. PMID: 1814133.
   IF **0.083**

List of articles published after obtaining a doctoral degree
(Articles not listed in point I.2 are marked with an asterisk)*

3. *[P_3] **Wieczorek, E.**; Parkitna, J.M.; Szkudlarek, J.; Ozyhar, A.; Kochman, M. Immunoaffinity purification of juvenile hormone-binding protein from *Galleria mellonella* hemolymph. ***Acta Biochim Pol***. 1996;43(4):603-10. PMID: 9104496
   IF = 0.321

4. [P_4] **Wieczorek, E.**; Brand, M.; Jacq, X.; Tora, L. Function of TAF(II)-containing complex without TBP in transcription by RNA polymerase II. ***Nature***. 1998 May 14;393(6681):187-91. doi: 10.1038/30283
   IF_{1998} = 28.833

5. [P_5] Izmailova, E.S.; **Wieczorek, E.**; Perkins, E.B.; Zehner, Z.E. A GC-box is required for expression of the human vimentin gene. ***Gene***. 1999 Jul 22;235(1-2):69-75. doi: 10.1016/s0378-1119(99)00209-7
   IF 2.258

6. [P_6] **Wieczorek, E.**; Lin, Z.; Perkins, E.B.; Law, D.J.; Merchant, J.L.; Zehner, Z.E. The zinc finger repressor, ZBP-89, binds to the silencer element of the human vimentin gene and complexes with the transcriptional activator, Sp1. ***J Biol Chem***. 2000 Apr 28;275(17):12879-88. doi: 10.1074/jbc.275.17.12879
   IF 7.368

7. *[P_7] Nieva, C.; Gwóźdź, T.; Dutko-Gwóźdź, J.; Wiedenmann J, Spindler-Barth, M.; **Wieczorek, E.;** Dobrucki, J.; Duś, D.; Henrich, V.; Ozyhar, A.; Spindler, K.D. Ultraspiracle promotes the nuclear localization of ecdysteroid receptor in mammalian cells. ***Biol Chem***. 2005 May;386(5):463-70. doi: 10.1515/BC.2005.055
   IF 2.577, $MNiSW/MEiN_{2010}$ = 27

8. *[P_8] Zoglowek, A.; Orłowski, M.; Pakuła, S.; Dutko-Gwóźdź, J.; Pajdzik, D.; Gwóźdź, T.; Rymarczyk. G.; **Wieczorek, E**.; Dobrucki, J.; Dobryszycki, P.; Ożyhar, A. The composite nature of the interaction between nuclear receptors EcR and DHR38. ***Biol Chem***. 2012 May;393(6):457-71. doi: 10.1515/hsz-2011-0283
   IF 2.683, $MNiSW/MEiN_{2012}$ = 25

9. *[P_9] Bielska, K.; Seliga, J.; **Wieczorek, E**.; Kędracka-Krok, S.; Niedenthal, R.; Ożyhar, A. Alternative sumoylation sites in the Drosophila nuclear receptor Usp. ***J Steroid Biochem Mol Biol***. 2012 Nov;132(3-5):227-38. doi: 10.1016/j.jsbmb.2012.05.011
IF 3.984, MNiSW/MEiN $_{2012}$ = 25

10. *[P_10] Seliga, J.; Bielska, K.; **Wieczorek, E**.; Orłowski, M.; Niedenthal, R.; Ożyhar, A. Multidomain sumoylation of the ecdysone receptor (EcR) from Drosophila melanogaster. ***J Steroid Biochem Mol Biol***. 2013 Nov;138:162-73. doi: 10.1016/j.jsbmb.2013.05.007
IF 4.049, MNiSW/MEiN $_{2013}$ = 25

11. [P_11] **Wieczorek, E**.; Kędracka–Krok, S.; Sołtys, K.; Jankowska, U.; Hołubowicz, R.; Seliga, J.; Ożyhar, A. Is Transthyretin a Regulator of Ubc9 SUMOylation? ***PLoS ONE*** 2016 Aug 8;11(8). doi: 10.1371/journal.pone.0160536
IF 2.806, MNiSW/MEiN $_{2016}$ = 35

12. [P_12] **Wieczorek, E**.; Chitruń, A.; Ożyhar, A. Destabilised human transthyretin shapes the morphology of calcium carbonate crystals. Biochim. Biophys. ***Acta - Gen. Subj***. 2019, 1863, 313–324, doi:10.1016/j.bbagen.2018.10.017
IF 3.422, MNiSW/MEiN $_{2019\text{-}2021}$ = 100

13. [P_13] **Wieczorek, E**.; Kędracka-Krok, S.; Bystranowska, D.; Ptak, M.; Wiak, K.; Wygralak, Z.; Jankowska, U.; Ożyhar, A. Destabilisation of the structure of transthyretin is driven by Ca^{2+}. ***Int. J. Biol. Macromol.*** 2021, 166, 409–423, doi:10.1016/j.ijbiomac.2020.10.199
IF 8.025, MNiSW/MEiN $_{2019\text{-}2021}$ = 100

14. [P_14] **Wieczorek, E.**; Ożyhar, A. Transthyretin: From structural stability to osteoarticular and cardiovascular diseases. ***Cells*** 2021, 10, doi:10.3390/cells10071768
IF 7.666, MNiSW/MEiN $_{2019\text{-}2021}$ = 140

15. [P_15] **Wieczorek, E**.; Bezara, P.; Ożyhar, A. Deep blue autofluorescence reveals the instability of human transthyretin. ***Int. J. Biol. Macromol***. 2021, 191, 492–499, doi:10.1016/j.ijbiomac.2021.09.107
IF 8.025, MNiSW/MEiN $_{2019\text{-}2021}$ = 100

16. [P_16] **Wieczorek E**, Wygralak Z, Kędracka-Krok S, Bezara P, Bystranowska D, Dobryszycki P, Ożyhar A. Deep blue autofluorescence reflects the oxidation state of human transthyretin. ***Redox Biol.*** 2022 Aug 9;56:102434. doi: 10.1016/j.redox.2022.102434
IF 10.787, MNiSW/MEiN $_{2019\text{-}2021}$ = 140

The total IF of my all articles according to the JCR, considering the year of publication is equal to **96.058**, of which **92.804** refers to articles published after the obtaining doctoral degree.

The **total number of points** according to the **MNiSW/MEiN** lists of scientific journals**,** appropriate for the year of publication is equal to **717** of which **717** points refer to articles published after obtaining the PhD. The score does not include **6** papers that were published before 2000.

5. List of project, engineering and design as well as technological achievements (including the achievements not mentioned in section I.3)

I have no design, construction or technological achievements.

6. List of public realizations of works of art (including the works not mentioned in section I.3)

I have not performed public works of art.

7. Information on presentations given at national or international scientific or arts conferences, including a list of lectures delivered upon invitation and plenary lectures

1. **Wieczorek**, **E.**; Kochman, M. Limited proteolysis of juvenile hormone binding protein. XXV konferencja Polskiego Towarzystwa Biochemicznego, 1989, Toruń Polska
2. **Wieczorek**, **E.**; Kochman, M. The effect of juvenile hormone on molecular properties of juvenile hormone binding protein from the haemolymph of *Galleria mellonella (L)*. Presented at the 15th Conference of European Comparative Endocrinologists, 1990, Leuven, Belgium. Abstracts published in Gen. Comp. Endocrinol. 82(2). **Oral presentation**
3. Kochman, M.; **Wieczorek**, **E**. Proteins involved in juvenile hormone signal transmission Insects. Chemical, physiological, and environmental aspects. Proceedings of the 1st International Conference on Insects: Chemical, Physiological and Environmental Aspects, Lądek-Zdrój, Poland, September 26-19, 1994 / Ed. by Danuta Konopińska [i in.]. Wrocław: Wydaw. Uniw. Wroc., 1995. s. 92-118.
4. Tora, L.; Brand, M.; **Wieczorek, E.**; Metzger, D. The role of TAFII30-containing complexes in vertebrate gene regulation. in: Human Frontier Workshop VII on "Transcription Regulation in Eukaryotes" Eds. P. Chambon, R.D. Kornberg, T. Fukasawa and C. Coath. HFSP, Strasbourg, France. pp. 162-170, 1999.
5. Gwozdz, T.; Nieva, C.; Dutko-Gwóźdź, J.; Kowalska, A.; Spindler-Barth, M.; **Wieczorek, E.**; Dobrucki, J.; Duś, D.; Spindler, K.D.; Ożyhar, A., Analysis of the distribution of ultraspiracle and ecdysteroid receptor in mammalian cells, IUBMB 50th Anniversary Symposium, Jul 2005, 272 , pp.483-484
6. Bielska, K.; Seliga, J.; **Wieczorek, E.**; Niednthal, R.; Ożyhar, A., Sumoylation of ultraspiracle protein from Drosophila melanogaster, 35th Congress of the Federation-of-European-Biochemical-Societies, Jun 2010, 277 , pp.130-131
7. Seliga, J.; Bielska, K.; **Wieczorek, E.**; Niednthal, R.; Ożyhar, A., Sumoylation of the 20-hydroxyecdysone receptor from Drosophila melanogaster, 35th Congress of the Federation-of-European-Biochemical-Societies. Jun 2010, 277 , pp.140-140
8. Seliga, J.; Bielska, K.; **Wieczorek, E.**; Niednthal, R.; Ożyhar, A., Sumoylation of insect nuclear receptor - EcR from Drosophila melanogaster, 36th FEBS Congress of the Biochemistry for Tomorrows Medicine, Jun 2011, 278 , pp.364-364
9. Bielska, K.; Seliga, J.; **Wieczorek, E.**; Niednthal, R.; Ożyhar, A. Modification of ultraspiracle protein by SUMO, 36th FEBS Congress of the Biochemistry for Tomorrows Medicine, Jun 2011, 278 , pp.352-352
10. **Wieczorek, E**.; Kędracka-Krok, S.; Sołtys, K. I.; Ożyhar, A. „Ubc9 fusion-directed SUMOylation of human transthyretin" plakat w ramach konferencji „Bio2016-Expanding beyond the limits 13 – 16 września 2016, Wrocław, Polska
11. **Wieczorek, E**.; Kędracka-Krok, S.; Jankowska, U.; Bystranowska, D.; Ożyhar A. "Transthyretin binds riboflavin photoproducts and undergoes structural changes upon irradiation" Poster at the Gordon Research Conference on Thiol based Redox regulation and Signalling, July 15th, 2018, Barcelona, Spain

8. Information on participation in organizational and scientific committees at national or international conferences, including the applicant's function

I did not participate in the organizing committee of the conference.

9. Information on participation in the works of research teams realizing projects financed through national and international competitions, including the projects which have been completed and projects in progress, and information on the function performed in the team

I participated in a grant headed by prof. Andrzej Ożyhar "Obtaining minimal transcription factors containing DNA-binding domains of nuclear receptors EcR and Usp," 2002, GRANT 3 P04B 009 2310. from the Ministry of Science and Higher Education, which was realized in the Department of Biochemistry, Wrocław University of Science and Technology.

I participated (in 1999 and in the period from July 1, 2000 to October 1, 2000) as a contractor in the realization of the grant of the National Institutes of Health (NIH), Grant HL-45422 headed by prof. Zendra Zehner.

10. Membership in international or national organizations and scientific societies, including the functions performed by the applicant.

I am a member of the Polish Biochemical Society.

11. Information on internships completed in scientific or artistic institutions, also abroad, including the place, time and duration of the internship and its character.

I have completed two two-year postdoctoral fellowships:

I completed my first postdoctoral internship at the Institute of Genetics and Molecular and Cellular Biology (*Institut de Genetique et de Biologie Moleculaire et Cellulaire*, IGBMC) in Strasbourg, France, in a team led by prof. Laszlo Tora. For the first year (from January 1, 1995 to December 31, 1995) I was a holder of the scholarship of the Ministry of Higher Education and Research (*Ministere de l'enseignement Superieur et de la Rechercher*) of France. After that time, I was employed at IGBMC until October 31, 1996.

The second postdoctoral internship, (from October 1, 1997 to September 31, 1999) I completed at the Virginia Commonwealth University (VCU) in Richmond, Virginia, USA, in a team led by prof. Zendra Zehner, as part of the US Government Exchange Visitor Program.

In addition to the above-mentioned, long-term post-doctoral internships, as part of the US government guest exchange program, I was on a short, 3-month stay (from July 1, 2000 to October 1, 2000) as a research scholar in the laboratory of prof. Zendra Zehner at VCU in Richmond, Virginia, USA.

The confirmations of my participation given by the group leaders are included in the **Attachment 5.**

12. Membership in editorial committees and scientific boards of journals, including the functions performed by the applicant (e.g. editor-in-chief, chairman of scientific board etc.)

I participate in the editorial committees of the following journals:

1. **Polymers** MDPI, **IF 4.967** as Topic Editor (Topical Advisory Panel Member)

2. **Frontiers in Nutrition, IF 6.59**, as the editor of the special issue "*Nutrition in Aging Brain*". This function included/includes formulation of a research topic, inviting potential authors, pre-evaluating submitted manuscripts, directing their evaluation, and summarizing the scientific achievements obtained in the research topic.

13. Information on scientific or artistic works reviewed, in particular those published in international journals

I was a reviewer of the following papers:

Yarahalli Jayaram V, Baggavalli S, Reddy D, Sistla S, Malempati R. Effect of endosulfan and bisphenol A on the expression of SUMO and UBC9. Drug Chem Toxicol. 2020 Nov;43(6):637-644. doi: 10.1080/01480545.2018.1526179. Epub 2018 Nov 14. PMID: 30426790.

Kopytova, A.E.; Rychkov, G.N.; Cheblokov, A.A.; Grigor'eva, E.V.; Nikolaev, M.A.; Yarkova, E.S.; Sorogina, D.A.; Ibatullin, F.M.; Baydakova, G.V.; Izyumchenko, A.D.; et al. Potential Binding Sites of Pharmacological Chaperone NCGC00241607 on Mutant β-Glucocerebrosidase and Its Efficacy on Patient-Derived Cell Cultures in Gaucher and Parkinson's Disease. *Int. J. Mol. Sci.* **2023**, *24*, 9105. https://doi.org/10.3390/ijms24109105

14. Information on participation in European or other international programmes

I did not participate in European and international programs.

15. Information on participation in research teams realizing projects other than those defined in section II.9

In 1995-1996, I participated as a researcher in a project financed by French scientific institutions: the CNRS, the INSERM, the *Hopital Universitaire de Strasbourg*, the *Ministere de la Recherche et Technologie*, the *Fondation pour la Recherche Medicale and the Association pour la Recherche contre le Cancer.*

In 2016, I submitted a grant application and received funding in the amount of PLN 25,000 from the funds of the Leading National Research Center (KNOW). The grant "Study of the impact of human transthyretin on the biomineralization process", in which I was also a contractor, was completed with a publication ([P_12]).

I participated in many projects funded by the Polish Ministry of Science and Higher Education, which is indicated in the published papers.

16. Information on membership in the teams assessing applications for financing of research projects, applications for scientific awards, applications in other competitions of scientific or didactic character

I did not participate in the evaluation teams.

II. INFORMATION ON COOPERATION WITH SOCIAL AND ECONOMIC ENVIRONMENT

1. List of technological works

None

2. Information on cooperation with economic sector

I do not have joint projects with economic sector.

In 2012, I conducted a commercial training on the principles of establishing and running a tissue culture laboratory in the Wrocław Technology Park (WPT).

I participated in meetings from the series "About inventions in the neighborhood" which was organized and conducted by WTP. The purpose of the meetings was to exchange information and seek opportunities for mutual cooperation between the scientific and economic sectors.

3. **Obtaining the right of industrial property, including the national or international patents granted**

   I do not have industrial property rights.

4. **Information on implemented technologies**

   I did not implement the technology.

5. **Information on performed expert analyses or other studies prepared on request of public institutions or entrepreneurs**

   I did not performed expert analyses.

6. **Information on participation in expert and competition teams**

   I did not participate in expert teams.

7. **Information on artistic projects realized in non-artistic environment**

   I did not realize the artistic projects.

IV. SCIENTOMETRIC INFORMATION

1. **Information on the Impact Factor (in the fields and disciplines in which this parameter is commonly used as a scientometric index)**

   The total IF for **16** publications is **96.058** according to JCR and taking into account the year of publication.

   The total IF of the publications submitted for evaluation, according to JCR and taking into account the year of publication**,** is **79.184,** of which:

   40.731 for the **6** publications presented in **the first achievement**
   38.453 for the **3** publications presented in **the second achievement**

2. **Information on the number of citations of the applicant's publications, including a separate list of self-citations**

   The total number of citations of my publications according to **Web of Science** database is **427** (**411** excluding self-citations, **16** self-citations), and according to **Scopus** database is **452** (**436** excluding self-citation).

3. **Information on *h*-index held**

   On day **21.08.2023** my Hirsch Index is equal to **9** (according to **Web of Science** and **Scopus** databases).

4. **Information on the number of the points awarded by the Ministry of Science and Higher Education**

The total number of **MNiSW/MEiN** points of my articles is **717**, of which **717** points refer to papers published after obtaining the doctoral degree. This includes **137** points for **5** publications (according to scoring until 2018) and **580** points for **5** publications (according to scoring from 2019). The **6** papers which were published before 2000 do not have assigned score.

The detailed distribution of the scientometric coefficients of all publications divided into projects is presented in the table below. Number of citations without self-citations is given in brackets.

Publications	**Citation number according to WEB of Science**	**Citation number according to Scopus**	**IF**	**points of MNiSW/MEiN**
The first achievement "Exploring new properties and relationships between the structure and function of human transthyretin in the context of disease pathogenesis and potential therapeutic strategies"				
[P_11]	9 (5)	9 (5)	2,806	35
[P_12]	4 (1)	4 (1)	3,422	100
[P_13]	11 (8)	11 (8)	8,025	100
[P_14]	12 (11)	13 (12)	10,787	140
[P_15]	3 (2)	3 (2)	8,025	100
[P_16]	4 (4)	4 (4)	7,666	140
[P11-P16]	43 (31)	44 (32)	40,731	615
The second achievement "Study of the regulation of gene transcription in *Homo sapiens*"				
[P_4]	222 (222)	230 (230)	*28,833*	-
[P_5]	22 (21)	24 (23)	*2,258*	-
[P_6]	53 (53)	56 (56)	*7,368*	-
[P4-P6]	297 (296)	310 (309)	*38,453*	-
Project „Study of juvenile hormone binding protein from the hemolymph of the wax moth Galleria mellonella"				
[P_1]	4 (3)	4 (3)	0.083	-
[P_2]	25 (25)	27 (27)	3,171	-
[P_3]	15 (15)	15 (15)	0,321	-
[P1-P3]	44 (43)	46 (45)	3,575	-
Project *„Study of proteins regulating gene transcription in insects"*				
[P_7]	26 (26)	29 (29)	2,577	27
[P_8]	8 (8)	10 (10)	2,683	25
[P_9]	5 (4)	7 (6)	3,984	25
[P_10]	4 (3)	6 (5)	4,049	25
[P7-P10]	43 (41)	52 (50)	13,263	102
[P1-P16]	**427 (411)**	**452 (436)**	**90,058**	**717**

Information included in section IV should also indicate the database, which was the source of information. When selecting this database specific character of the scientific field and discipline in which the candidate applies for the conferment of the post-doctoral degree of doctor habilitated should be considered as an important factor.
The Council of Scientific Excellence informs that in its opinion it is recommended to provide the scientometric data; it is also a widespread practice applied by the applicants seeking academic promotion. It should be stressed, however, that scientometric data included in the applications for

the commencement of promotion procedures cannot serve as a criterion for evaluation of the Candidate's scientific work for the entities awarding the PhD and post- doctoral degrees and for the Council of Scientific Excellence itself, or for the bodies running procedures for the award of a degree or title. The primary goal of these entities is expert evaluation of the scientific work of the Candidate seeking academic promotion. The decision on the conferment of the degree or title should not depend on the fact that such data is included.

……Elżbieta Wieczorek...
(Applicant's signature)