

Dr. Kristan Corwin
Associate Dean
College of Arts and Sciences
Kansas State University

Re: BMB Department Head internal search

February 15, 2018

Dear Dr. Corwin,

I am writing to apply for the position of the Head in the Department of Biochemistry and Molecular Biophysics. I am enclosing my academic CV and a list of references.

I am currently employed as a tenured Professor in the BMB Department. For the last 10 years, I have been serving as the BMB Graduate Program Director. In that capacity, I have been shaping the graduate program's academic policies and have been responsible for graduate students' recruitment and admission, with the goal of maintaining the student population size, quality, and diversity. During my service as the BMB GPD, I have been the chief academic advisor for 90 graduate students with diverse academic and ethnic backgrounds, including international students from 14 countries in Europe, Asia, Africa, and the Americas. I have been advising the students on their programs of study, career opportunities, and, in several cases, I assisted in conflict resolution. I served on 52 graduate student supervisory committees in BMB and six other departments.

As the Graduate Program Director, I have been serving as the Chair of the BMB Graduate Group, an interdepartmental body of 34 graduate faculty involved in biochemical and biophysical research at K-State. In that capacity, I performed administrative functions for the group, including new faculty member admissions, chairing the annual faculty meetings, and implementing the group's policy updates. I represented the group in the Graduate School and at the University level. I have been also performing the graduate program assessment and reporting to the KSU Graduate School and the Kansas Board of Regents. In addition, I served for 4 years on the KSU Graduate Council and its Academic Affairs Committee where I participated in shaping the academic programs for a number of graduate degrees at K-State.

During the last year, I assisted Dr. Phillip Klebba as his deputy in various departmental operations. I have been also serving as an undergraduate advisor for 10 Biochemistry majors and regularly met with prospective students and their families during their visits to the K-State campus. Altogether, this extensive service experience let me acquire a significant knowledge of the mechanisms and policies involved in the undergraduate and graduate education at K-State, enhance my interpersonal and managerial skills, and develop appreciation for diversity in the workplace.

As a K-State faculty, I participated in teaching 14 courses, ranging from 100- to 900-level. I independently developed the course Advanced Topics in Protein Science (BIOCH 950) and parts of Protein Structure

Laboratory (BIOCH 758). My teaching efforts were effective and met with a predominantly enthusiastic response from the students, as shown by the teaching evaluations. Thus, I am very familiar with the students' expectations at different academic levels and with the challenges and workloads involved in teaching a diverse set of courses. Importantly, I have personally experienced teaching at all levels currently offered by the BMB Department, including both the lecture and laboratory courses, which will help me distribute the faculty teaching load in a fair and effective manner.

As a faculty member at K-State, I developed a research program on the biological role and molecular mechanism of bacterial molecular chaperones from the Hsp100 family. Currently, my laboratory is exploring a potential of Hsp100 to become a novel antimicrobial target. I have been the Principal Investigator or co-Investigator in 21 research proposals funded by federal agencies and private foundations. I am the PI of two proposals submitted to the National Institutes of Health that are currently under review. During my academic career, I co-authored 56 peer-reviewed research publications and 5 invited review articles and book chapters. I gave 39 oral presentations at scientific conferences and at multiple academic institutions.

For over 20 years, I have been serving on the Editorial Board of the journal Archives of Biochemistry and Biophysics. I served as a reviewer of numerous manuscripts submitted to the ABB and 32 other journals, including Nature Structural and Molecular Biology and Proceedings of the National Academy of Sciences USA. I reviewed multiple grant proposals, including several for the National Science Foundation and the National Institutes of Health. I served for 4 years on the Scientific Advisory Council of the Dystonia Medical Research Foundation, where I gained experience working with private donors and a non-profit organization. Altogether, my experience as an investigator, reviewer, and advisory board member, gave me not only understanding of the science administration, but also a significant empathy for the various constituencies, which will help me maintain productive contacts with different parties interacting with the department's research programs.

The paragraphs above describe the factors validating my qualifications for the BMB Head position, as defined in the position description. Below, I will outline the vision of my leadership of the department.

I envision the future role of the Department of Biochemistry and Molecular Biophysics as an academic and intellectual hub for the molecular life science network on the KSU campus. Our areas of research expertise are diverse and allow scientific interactions with a number of academic departments across multiple colleges: Arts and Sciences, Agriculture, Veterinary Medicine, Human Ecology, and Engineering. Our class offerings are included in the curricula of multiple academic programs.

BMB is a research-oriented department. This is our strength, which brings visibility and recognition and drives our growth. Exciting research programs of our faculty attract students to our academic programs. Given the central role of the individual faculty research in the department's success, I see the role of the Head as an "enabler" and a strong supporter of the faculty in their quest to develop new ideas and secure funding for their projects. I plan to build a supportive environment, in which faculty could work as productively as they aspire to. I plan to remove obstacles and pay attention not to create new ones. Cutting-edge bio-molecular research will be the central theme and the main goal.

As an example of a specific approach to facilitate research, I plan to optimize the teaching duties of the BMB faculty in order to utilize the faculty effort and time efficiently, while maintaining the highest quality of instruction. I also plan to channel as much SRO funds as possible (and permissible) into research activities of the faculty contributing to the indirect costs. This might include funding students' travel to scientific conferences, covering equipment purchases and maintenance, and in the event of a significant influx of the SRO funds, contributing to the individual faculty's pilot projects.

BMB has enjoyed a longstanding support from the Kansas Agricultural Experiment Station in the form of partial faculty salaries, graduate student stipends, new faculty startups, and other essential funds. I plan to maintain the mutually beneficial relation with the KAES. I believe that our bio-molecular research programs are and will be essential for success of the KAES mission in addressing the challenges in the global food systems and the community vitality and health.

My academic background includes several disciplines: physics, biophysics, chemistry, and biochemistry. Without neglecting the traditional links of BMB with the life sciences community on campus, I plan to encourage and help in developing new collaborative initiatives at the crossroads of STEM disciplines. I believe that there is an untapped potential among the students of physics, engineering, and computer science, who may not be aware of opportunities in life sciences for their "quantitative" minds. BMB could become a catalyst for developing at K-State new academic programs preparing the workforce for the emerging novel directions in the quantitative life sciences, such as systems and networks biology, big data-enabled discovery, or mapping the human brain.

Obviously, a growth of the managed unit should be the main goal and a metric of success for a manager. The growth of the BMB department can be measured by an increase in the number of faculty or extramural funding, number of publications, citations etc. My goal is to promote the department growth in all the above dimensions, with the understanding that the first one, the faculty number increase, will be the hardest to achieve during the times of a tight budget. Specifically, our department size is currently limited by its research space and the growth in size would require construction of a new science building. Due to budgetary restrictions, such space expansion is currently unlikely, but I plan to watch for any emerging opportunities in the future, possibly by forming a lobbying alliance with the Heads of other science departments.

Finally, I want to address my vision of the leadership style. While I recognize that it is the ultimate responsibility of the Head to make decisions, I will make an effort to prepare for the decision making cooperatively with the affected faculty and staff. Often, the information needed to solve a problem as well as potential solutions can be analyzed collectively in committees. I plan to establish a permanent curriculum committee for academic programs and a committee on planning for budget emergencies. Other *ad hoc* committees would be formed as needed. I plan to have regular department faculty meetings to disseminate information and promote discussion on the current actions and decisions affecting the department. The actions and decisions will be openly discussed with the group of affected or interested individuals, including the

instructional staff, research faculty, and the office staff. I will emphasize transparency in the department operations.

It is obvious that the assessment of the faculty and staff by the department Head should be fair, and fairness will be the baseline principle during the annual employee evaluations. In ranking the faculty performance, I will use clear criteria listed in the BMB Indices of Professional Accomplishment. I will use the “sliding window” approach to account for the expected fluctuations in productivity due to the cyclical nature of funding and publishing. I will conclude each annual review session with the question: “How can the department help? How can I help you become successful?”

I am interested in the Head position because I feel at home in the BMB Department and at K-State. I feel responsible for this place, especially at the time of the current budget restrictions. I know that the road ahead will bring many challenges, but I hope, a solution for most of them can be found through a collaborative effort of our faculty and staff. Thank you very much for your time and consideration. I will be happy to provide a more detailed description of my achievements, plans, and ideas, and I look forward to speaking with you.

Sincerely yours,



Michal Zolkiewski, Ph.D.
Professor and Graduate Program Director

CURRICULUM VITAE

Michal Zolkiewski

Work address:

Department of Biochemistry and Molecular Biophysics
 Kansas State University
 141 Chalmers Hall
 Manhattan, KS 66506

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 e-mail: michalz@ksu.edu

Citizenship: U.S.A.

Current Position: Professor and Graduate Program Director
 Department of Biochemistry and Molecular Biophysics
 Kansas State University, Manhattan, Kansas, U.S.A.

Education:

1990-97 Postdoctoral, Biochemistry - National Institutes of Health, Bethesda, Maryland. Advisor: Ann Ginsburg.
 1984-89 Ph.D., Chemistry - Institute of Physical Chemistry, Polish Academy of Sciences, Warsaw, Poland. Thesis advisor: Wojciech Zielenkiewicz.
 1979-84 B.S./M.S., Biophysics - University of Warsaw, Warsaw, Poland. Thesis advisor: David Shugar.

Positions Held:

2017- Professor, Department of Biochemistry and Molecular Biophysics, Kansas State University, Manhattan, Kansas
 2004-2017 Associate Professor, Department of Biochemistry, Kansas State University, Manhattan, Kansas
 1997-2004 Assistant Professor, Department of Biochemistry, Kansas State University, Manhattan, Kansas
 1995-1997 Visiting Associate, Laboratory of Biochemistry, National Heart, Lung, and Blood Institute, National Institutes of Health, Bethesda, Maryland
 1990-1995 Fogarty Fellow, Laboratory of Biochemistry, National Heart, Lung and Blood Institute, National Institutes of Health, Bethesda, Maryland
 1984-1989 Graduate Research Assistant, Institute of Physical Chemistry, Polish Academy of Sciences, Warsaw, Poland

Fellowships and Awards:

2007 Kansas IDeA Network for Biomedical Research Excellence Faculty Scholar Award
 1992 The Giauque Memorial Award in recognition of participation in the Calorimetry Conference as a postdoctoral fellow.
 1990-95 Fogarty postdoctoral fellowship, National Heart, Lung, and Blood Institute, National Institutes of Health, Bethesda, Maryland.
 1988 Graduate Research and Travel Award, Institute of Non-aqueous Solutions, Ivanovo, Russia

- 1987 Graduate Research and Travel Award, University of Palma de Mallorca, Spain
 1985 Graduate Research and Travel Award, University of Santiago de Compostela, Spain

TEACHING AND ADVISING

Courses Taught (at Kansas State University):

<i>Course Title</i>	<i>Course number</i>	<i>Credits</i>	<i>Average Enrollment</i>	<i>Semesters Taught</i>
Biochemistry Orientation	BIOCH 100	1	16	F02
Introductory Organic and Biochemistry	BIOCH 265	5	76	S00, S02, S06, S07, Su09, F09
Biochemistry Seminar	BIOCH 290	2	13	S00, S04,
General Biochemistry	BIOCH 521	3	193	S15, S18
Medical Biochemistry	BIOCH 571	3	22	F16, F17
Physical Studies of Biomacromolecules	BIOCH 590	3	20	S99, S01, S04, S05, S08
Biochemistry I	BIOCH 755	3	46	F02, F12, F13, F14, F16
Biochemistry I Laboratory	BIOCH 756	2	24	F13, F14, F16, F17
Protein Structure Laboratory	BIOCH 758	1	8	S01, S02, S03, S04, S05, S06, S07, S08, S09, S10, S11, S12, S13, S15, S16 S17
Molecular Biophysics	BIOCH 775	3	20	S14, S15, S16, S17, S18
Physical Biochemistry	BIOCH 790	3	8	F99, F01, F03, F05, F07, F08, F10, F12
Biochemistry Seminar	BIOCH 806	1	25	S98, F98, S03, S10, F17
Enzymes	BIOCH 950	3	5	S09
Advanced Topics in Protein Science	BIOCH 950	3	10	S12, S16

Postdoctoral Fellows Trained:

1. Vekalet Tek (2000-2002), Research Assistant Professor, Florida International University, Miami, Florida
2. Sabina Kedzierska (2002-2004), Associate Professor, University of Gdansk, Gdansk, Poland
3. Vladimir Akoev (2001-2004), Research Manager, Ventria Bioscience, Junction City, Kansas
4. Zhonghua Liu (2005-2006), Manager, PathSensors, Inc., Baltimore, Maryland; previously Howard Hughes Medical Institute and Carnegie Institution of Washington, Baltimore, Maryland
5. Zhiguang Jia (2014-2016; co-advised with Dr. J. Chen), Research Associate, University of Massachusetts, Amherst, Massachusetts
6. Przemyslaw Glaza (2016-present)

Graduate Students Trained:

1. Micheal E. Barnett (M.S., 2001; Ph.D., 2004) Instructor, Kansas State University; previously Research Associate, Ventria Bioscience, Junction City, Kansas
2. Zhonghua Liu (Ph.D., 2005) Manager, PathSensors, Inc., Baltimore, Maryland; previously Postdoctoral Fellow, Howard Hughes Medical Institute and Carnegie Institution of Washington, Baltimore, Maryland
3. Xinshuo Wang (M.S., 2005) Research Associate, University of Colorado, Denver, Colorado;

previously doctoral student, University of North Carolina, Chapel Hill, North Carolina

4. Maria Nagy (Ph.D., 2008) Research Associate, Howard Hughes Medical Institute and Yale University, New Haven, Connecticut
5. Ting Zhang (Ph.D., 2012) Postdoctoral Fellow, National Institutes of Health, Bethesda, Maryland
6. Yan Wu (M.S., 2012) Intern, Theravance Inc., San Francisco, California
7. Samuel Molina (Ph.D., 2012; co-advisor with Dr. D. Takemoto after her retirement) Postdoctoral Fellow, Emory University, Atlanta, Georgia
8. Fabrice Ngansop (M.S., 2013) Instructor, Tarrant County College, Arlington, Texas
9. Hui-Chuan Wu (Ph.D., discontinued for personal reasons)
10. Randi Wise (Ph.D., 2017, co-advisor with Dr. Anna Zolkiewska) Assistant Professor, Sterling College, Sterling, Kansas
11. Indhujah Thevarajan (Ph.D., ongoing)
12. Chathurange Ranaweera (Ph.D., ongoing)
13. Lynn Schrag (Ph.D., ongoing, co-advisor with Dr. Om Prakash)

Undergraduate Students Trained in Research:

1. Alison Young (2005) Howard Hughes Medical Institute student scholar
2. Grant Hamel (2012) Biochemistry major
3. Alex Burnett (2013-2014) Biochemistry major

Hosting of Visiting Scientists:

1. Dr. Anna Modrak-Wojcik (2001), University of Warsaw, Poland
2. Dr. Katarzyna Stepniak (2004), University of Warsaw, Poland
3. Dr. Agnieszka Bzowska (2004), University of Warsaw, Poland
4. Dr. Maria Zavodszky (2005), Michigan State University, East Lansing, Michigan
5. Dr. Luciana Kauer-Rosselli (2009), University of Campinas, Sao Paulo, Brazil
6. Dr. Beata Wielgus-Kutrowska (2012), University of Warsaw, Poland
7. Dr. Dorota Kuczynska-Wisnik (2016), University of Gdansk, Poland

Service on Graduate Students' Supervisory Committees:

1. Maria Zavodszky, M.S. 2000, Biochemistry
2. Hongxing Lei, Ph.D. 2003, Biochemistry
3. Jeremy R. Rush, Ph.D. 2003, Chemistry
4. Wade Takeguchi, M.S. 2002, Biochemistry
5. Richard Harris, M.S. discontinued, Biochemistry
6. Qinsong Zhu, M.S. 2003, Biochemistry
7. Sol Kim, Ph.D. 2003, Food Science (external committee chair)
8. Mahalaxhmi Aburi, Ph.D. 2004, Biochemistry
9. Zhefeng Zhao, Ph.D. 2004, Biochemistry
10. Balaji Ramanathan, Ph.D. 2004, Anatomy and Physiology (external committee chair)
11. Veronica Pierce, B.S./M.S. 2006, Biochemistry
12. Chong Pyo Choe, Ph.D. 2006, Biology
13. Varun Kumar, M.S. discontinued, Biochemistry
14. Danqionq Sun, Ph.D. 2008, Biochemistry
15. Matthew Berg, Ph.D. 2008, Physics (external committee chair)
16. Satyabrata Das, Ph.D. 2009, Biochemistry

17. Brian Lubbers, Ph.D. 2009, Pathobiology (external committee chair)
18. Prashant Chopade, Ph.D. 2010, Chemistry, (external committee chair)
19. Debjani Pal, M.S. 2010, Biochemistry
20. Elizabeth Ploetz, B.S./M.S. 2010, Biochemistry
21. Sushanth Gudlur, Ph.D. 2012, Biochemistry
22. Jayne Christen, Ph.D. 2011, Biochemistry
23. Urska Bukovnik, Ph.D. 2011, Biochemistry
24. Weihong Zhang, Ph.D. 2014, Biochemistry
25. Chester McDowell, M.S. 2012, Biochemistry
26. Yue Qi, Ph.D. 2016, Biochemistry
27. Prashant Wani, Ph.D. 2015, Biochemistry
28. Chen Lin, Ph.D. 2012, Chemistry
29. Alina de la Mota, Ph.D. 2014, Biology
30. Tam Tran Nguyen, Ph.D. 2017, Biochemistry
31. Lorne Jordan, Ph.D. 2015, Biochemistry
32. Adriana Avila, Ph.D. 2014, Biochemistry
33. Yan Shipelskiy, Ph.D. 2017, Biochemistry
34. Jordan Woehl, Ph.D. 2017, Biochemistry
35. Alex Beugelsdijk, M.S. 2014, Biochemistry
36. Linda Alyahya, M.S. 2017, Biochemistry
37. Mark Boatwright, Ph.D. 2018, Biochemistry
38. Aritri Majumdar, Ph.D., Biochemistry
39. Xiaorong Liu, Ph.D., Biochemistry, transferred to the University of Massachusetts
40. Katherine Kornacki, M.S. 2016, Biochemistry
41. Jacob Hodge, M.S. 2016, Biochemistry
42. Nicoleta Ploscariu, Ph.D., Biochemistry
43. Adam Kell, Ph.D. 2016, Chemistry
44. Mahboobe Jassas, Ph.D., Chemistry
45. Kenrick Waite, Ph.D., Biology
46. Pavithra Natarajan, Ph.D., Biochemistry
47. Miao Li, Ph.D., Biochemistry
48. Xiangwei Zhu, Ph.D. 2017, Grain Science and Industry
49. Simran Bawa, M.S. 2017, Biochemistry
50. Ashish Kumar, Ph.D., Biochemistry
51. Samson Souza, Ph.D., Biochemistry
52. Susan Whitaker, M.S., 2018, Biochemistry

SERVICE

University Service

- 2006-2009 Member of the Graduate Council and the Academic Affairs Committee, Kansas State University
- 2008-present Chair of the Biochemistry and Molecular Biophysics Graduate Group and the BMB Graduate Program Director, Kansas State University; Chief Advisor of the graduate students in Biochemistry (90 students total as of Feb 2018)
- 2017-present Deputy Department Head, Department of Biochemistry and Molecular Biophysics, KSU
 Faculty search committees at the Department of Biochemistry, KSU (2004, 2006, 2015, 2016).
 Biochemistry Department Head search committee (2011).

KSU Telefund, participant/organizer (1998, 2000).
 KSU Open House, Biochemistry organizing committee (2001, 2005)
 Biochemistry newsletter committee (2011, 2012)
 Biochemistry GRA Award committee (2001, 2005, 2006)
 Biochemistry GTA Award committee (2001, 2002)
 Biochemistry departmental committee on planning (2010, 2011)

Other Professional Activities:

1996-present Member of the Editorial Board, Archives of Biochemistry and Biophysics
 2011-2015 Member of the Medical and Scientific Advisory Council, the Dystonia Medical Research Foundation
 Member of the scientific committee, COBRE workshop “Stress Proteins and Chaperones in Medicine and Biology”, Lawrence, Kansas, 2003.
 Member of the program committee, 14th Annual Midwest Stress Response and Molecular Chaperone Meeting, Northwestern University, Evanston, Illinois, 2009.
 Member of the scientific committee, 2010 American Chemical Society Midwest Regional Meeting, Wichita, Kansas, 2010.

Review of manuscripts (approx. 10 reviews per year) for:

ACS Synthetic Biology
 Analytical Biochemistry
 Archives of Biochemistry and Biophysics
 Biochemistry
 Biochimica et Biophysica Acta
 Biochimie
 Biologia (Slovakia)
 Biopolymers
 Canadian Journal of Microbiology
 Cellular and Molecular Life Sciences
 EMBO Journal
 EMBO Reports
 FEBS Letters
 FEBS Journal
 Frontiers in Molecular Biosciences
 Human Molecular Genetics
 IUBMB Life
 Journal of Biological Chemistry
 Journal of Molecular Biology
 Journal of Structural Biology
 Molecular Microbiology
 Nature Reviews Molecular Cell Biology
 Nature Structural and Molecular Biology
 Oncotarget
 Plant Cell
 PLoS One
 Proceedings of the National Academy of Sciences USA
 Process Biochemistry
 Proteins

Protein Engineering
 Protein Science
 Scientific Reports
 Trends in Biochemical Sciences.

Review of grant proposals for:

National Institutes of Health (Molecular, Cellular, and Developmental Neuroscience IRG *ad hoc* reviewer) (2008-2009)
 National Institutes of Health (Prokaryotic Biology IRG *ad hoc* reviewer) (2007)
 National Science Foundation (Molecular and Cellular Biosciences Program) (2009, 2011)
 National Science Foundation (Kansas EPSCoR Program) (2000)
 U.S. Department of Defense, Congressionally Directed Medical Research Programs, Dystonia panel (2013)
 American Chemical Society Petroleum Research Fund
 Dystonia Medical Research Foundation (2011-2013, 2017)
 Research Foundation – Flanders, Belgium (2016)
 Israel Science Foundation (2017)
 Kansas Agricultural Experiment Station (2006)
 KSU Targeted Excellence Initiative (2006)

SCHOLARSHIP

Invited Oral Presentations:

- 2017 “Molecular Chaperone ClpB: Protein Disaggregase Becomes a Novel Antimicrobial Target”, Physical Chemistry Group, Department of Chemistry, Kansas State University, Manhattan, Kansas
- 2017 “Molecular Chaperone ClpB: Protein Disaggregase Becomes a Novel Antimicrobial Target”, Center of Excellence for Vector-Borne Diseases, Kansas State University, Manhattan, Kansas
- 2016 “Molecular Chaperone ClpB: Protein Disaggregase Becomes a Novel Antimicrobial Target”, Emporia State University, Emporia, Kansas
- 2015 “Molecular Chaperones and Protein Disaggregation: Unscrambling scrambled eggs one polypeptide at a time”, Fort Hays State University, Hays, Kansas
- 2015 “ClpB supports the infectious stage of *Ehrlichia chaffeensis*”, 27th Meeting of the American Society for Rickettsiology, Squaw Valley, California
- 2013 “Molecular Chaperone ClpB as a Novel Antimicrobial Target”, Fragment-based Drug Design Workshop, COBRE Protein Structure and Function, the University of Kansas, Lawrence, Kansas
- 2011 “AAA+ ATPase ClpB: a protein disaggregation machine”, International Institute of Molecular and Cell Biology, Warsaw, Poland
- 2011 “A Yeast Expression System To Uncover Fundamental Aspects of TorsinA Function” Workshop of the Dystonia Medical Research Foundation, Scottsdale, Arizona (joint presentation with Dr. Jeffrey Brodsky, University of Pittsburgh)
- 2009 “Protein-disaggregation machine ClpB and its role in stress tolerance and prion propagation”, Department of Diagnostic Medicine/Pathobiology, College of Veterinary Medicine, Kansas State University, Manhattan, Kansas
- 2008 “A Lord of the Ring: assembly of the protein disaggregating machine ClpB”, Physical Chemistry Group, Department of Chemistry, Kansas State University, Manhattan, Kansas
- 2008 “Cellular and biochemical assays: advantages and limitations”, Workshop of the Dystonia Medical Research Foundation “Advancing Translational Research in Dystonia”, Boston, Massachusetts
- 2008 “A Lord of the Ring: assembly of the protein disaggregating machine ClpB”, 63rd Calorimetry

- Conference CALCON 2008, Jersey City, New Jersey
- 2007 “Non-canonical Walker A motif in TorsinA defines a novel subfamily of AAA+ ATPases with distinct biochemical properties”, Workshop of the Dystonia Medical Research Foundation, Vanderbilt University, Nashville, Tennessee
- 2007 “Optimum chaperone activity of the AAA+ ATPase ClpB requires cooperation of its two isoforms”, Department of Chemistry, Wichita State University, Wichita, Kansas
- 2007 “Optimum chaperone activity of the AAA+ ATPase ClpB requires cooperation of its two isoforms”, 12th Annual Midwest Stress Response and Chaperone Meeting, Evanston, Illinois (presented by graduate student Maria Nagy)
- 2006 “Protein folding, misfolding, and aggregation”, The Condensed Matter Physics Group, Department of Physics, Kansas State University, Manhattan, Kansas
- 2006 “Biochemical mysteries of TorsinA”, Workshop of the Dystonia Medical Research Foundation, Scottsdale, Arizona
- 2005 “Interactions of ClpB from *Escherichia coli* with aggregated proteins”, 6th International Conference on AAA Proteins, Graz, Austria
- 2005 “AAA+ ATPase TorsinA Directly Interacts with a Nuclear-Envelope Protein LAP1B”, Gordon Research Conference “Stress Proteins in Growth, Development & Disease”, Newport, Rhode Island (short talk presented by graduate student Zhonghua Liu)
- 2005 “Interactions of the AAA+ ATPase ClpB with aggregated proteins”, 10th Annual Midwest Stress Response and Chaperone Meeting, Evanston, Illinois (presented by graduate student Maria Nagy)
- 2005 “Lords of the Ring: Structure and Function of AAA+ ATPases”, Department of Biochemistry and Molecular Biology, Louisiana State University Health Science Center, Shreveport, Louisiana
- 2005 “Lords of the Ring: Structure and Function of AAA+ ATPases”, Department of Biochemistry and Molecular Biology, University of Kansas Medical Center, Kansas City, Kansas
- 2004 “Lords of the Ring: Structure and Function of AAA+ ATPases”, Department of Molecular Medicine, University of Texas Health Sciences Center, San Antonio, Texas
- 2003 Department of Chemical Engineering, Kansas State University, Manhattan, Kansas
- 2003 COBRE workshop, “Stress Proteins and Chaperones in Medicine and Biology”, Lawrence, Kansas
- 2003 Department of Chemistry, Wichita State University, Wichita, Kansas
- 2003 School of Biological Sciences, University of Missouri at Kansas City, Kansas City, Missouri
- 2003 8th Annual Midwest Stress Response and Chaperone Meeting, Chicago, Illinois (presented by graduate student Micheal Barnett)
- 2002 Department of Physiology and Biophysics, Case Western Reserve University, Cleveland, Ohio
- 2002 FASEB Summer Research Conference “Protein Folding in the Cell”, Saxtons River, Vermont (short talk)
- 2001 Dystonia Medical Research Foundation Workshop, “From Gene to Function in Dystonia”, Phoenix, Arizona
- 2001 6th Annual Midwest Stress Response and Chaperone Meeting, Chicago, Illinois
- 2000 Department of Biochemistry, Michigan State University, Lansing, Michigan
- 1999 Department of Biochemistry, University of Nebraska, Lincoln, Nebraska
- 1998 Department of Molecular Biosciences, University of Kansas, Lawrence, Kansas
- 1997 Department of Biochemistry, Purdue University, West Lafayette, Indiana
- 1997 Department of Biochemistry, Kansas State University, Manhattan, Kansas
- 1996 ScriptGen Pharmaceuticals, Medford, Massachusetts
- 1995 Center for Biologics Evaluation and Research, FDA, Bethesda, Maryland

Grant Support:

1. "Structure and Function of Hsp100 Proteins", M. Zolkiewski PI, National Science Foundation EPSCoR Program, 12/01/1998 – 9/30/1999, \$58,400.
2. "Analytical Ultracentrifuge for Analysis of Interactions of Macromolecules", M. Zolkiewski PI, National Science Foundation EPSCoR Program, 02/01/1999-01/31/2000, \$153,689.
3. "Structure and Function of Hsp100 Proteins", M. Zolkiewski PI, National Institutes of Health, R01, 5/01/2000 – 11/30/2006, \$909,375.
4. "CAREER: Structure and Function of Hsp100 Proteins", M. Zolkiewski PI, National Science Foundation, \$444,351 (awarded, but declined by PI due to an overlap with the NIH R01 award).
5. "Functional Domains in ClpB, a Novel Molecular Chaperone", M. Zolkiewski PI, American Heart Association, Heartland Affiliate, 07/01/2000-06/30/2002, \$79,097.
6. "Structure and Activity of Human TorsinA", M. Zolkiewski PI, Dystonia Medical Research Foundation, 4/01/2001- 3/31/2002, \$49,473.
7. "Protein Structure and Function (COBRE)", R. P. Hanzlik PI, M. Zolkiewski mentor of Dr. Brian Blagg (University of Kansas), National Institutes of Health, 9/01/2002 - 8/31/2004, \$14,000.
8. "Activity and Interactions of Human TorsinA", M. Zolkiewski PI, Dystonia Medical Research Foundation, 4/15/2005-4/14/2008, \$131,422.
9. "Molecular Switches: a Novel Sub-Family of AAA+ ATPases", M. Zolkiewski PI, Kansas IDeA Network of Biomedical Research Excellence (K-INBRE), 5/01/2006-4/30/2007, \$45,500.
10. "Screening for torsinA interaction-modulating compounds", M. Zolkiewski PI, Dystonia Medical Research Foundation, 10/1/2007-9/30/2008, \$50,000.
11. "Aggresomes in cancer therapy: a proteomic approach", M. Zolkiewski PI, Terry C. Johnson Center for Basic Cancer Research at KSU, \$25,000.
12. "Structure and Function of Energy-Dependent Protein Remodeling Factors", M. Zolkiewski, PI, Kansas Agricultural Experiment Station, 5-year Hatch Project, 10/01/2008-09/30/2013, \$2,500/year.
13. "Accurate simulations of peptide aggregation", P. Smith PI, M. Zolkiewski Co-Investigator, National Institutes of Health, 3R01GM079277-03S1, 9/30/2009-8/31/2011, \$190,426.
14. "Genomic analysis of *Drosophila* torsin loss-of-function model", M. Zolkiewski PI, M. Gorman co-PI, Y. Park co-PI, K-State Arthropod Genomics Center, 2/01/2010-3/31/2012, \$110,886.
15. "A Yeast Expression System To Uncover Fundamental Aspects of TorsinA Function", J. Brodsky PI, M. Zolkiewski co-PI, Dystonia Medical Research Foundation, 9/01/2010-8/31/2012, \$130,000.
16. "Endoplasmic-reticulum chaperones in breast cancer stem cells", M. Zolkiewski PI, Terry C. Johnson Center for Basic Cancer Research at KSU, 5/01/2013-4/30/2014, \$19,500.
17. "Mechanism for facile binding of BH3-only proteins to the pro-survival protein Bcl-w", J. Chen, PI, M. Zolkiewski co-Investigator, Terry C. Johnson Center for Basic Cancer Research at KSU, 5/01/2014-4/30/2015, \$20,000.
18. "Mechanism of Chaperone-Mediated Protein Disaggregation", M. Zolkiewski, PI, Kansas Agricultural Experiment Station, 5-year Hatch Project, , 10/01/2014-09/30/2019, \$2,500/year.
19. "Molecular chaperones of *Ehrlichia chaffeensis*", M. Zolkiewski PI, R. Ganta co-Investigator, Kansas IDeA Network of Biomedical Research Excellence, 9/01/2015-4/30/2016, \$52,000.
20. "Multi-scale enhanced sampling of disordered proteins", J. Chen PI, M. Zolkiewski co-Investigator. National Institutes of Health, 1R01GM114300, 1/01/2016-11/30/20, \$1,443,750.
21. "High-throughput assays for inhibitors of the Hsp100 molecular chaperones", M. Zolkiewski PI, National Institutes of Health, 1R56A1121366, 8/19/2016-7/31/2018, \$387,500.

Grants submitted and under review

1. "Development of Hsp100-selective inhibitors for targeting multiple microbial pathogens", M. Zolkiewski PI, B. Blagg co-PI, National Institutes of Health (R21). Submitted in Nov 2017.

2. "Discovery of Hsp100-selective inhibitors for targeting multiple microbial pathogens", M. Zolkiewski PI, A. Roy co-PI, National Institutes of Health (R01). Submitted in Feb 2018.

Review Articles, Book Chapters and Other Invited Contributions:

1. **Zolkiewski, M.**: "A camel passes through the eye of a needle: protein unfolding activity of Clp ATPases", *Mol. Microbiol.* **61**, 1094-1100, 2006.
2. **Zolkiewski, M.**: "ClpB: a chaperone for protein disaggregation", in Houry, W. (ed.), *Molecular Chaperones: Principles and Diseases*, The Biomedical & Life Sciences Collection, Henry Stewart Talks Ltd, London, 2007 (online at <http://www.hstalks.com/?t=BL0261621-Zolkiewski>).
3. **Zolkiewski, M.** and Wu, H.- C.: "Emerging Area: TorsinA, a Novel ATP-Dependent Factor Linked to Dystonia" in Witt, S. N. (ed.), *Protein Chaperones and Protection from Neurodegenerative Diseases*, Wiley, 2011.
<http://www.wiley-vch.de/publish/en/books/bySubjectCH00/ISBN0-470-56907-7/?sID=2kk90dv9slrt6n1gj129cj43e6>
4. **Zolkiewski, M.**, Zhang, T. and Nagy, M.: "Aggregate reactivation mediated by the Hsp100 chaperones", *Arch. Biochem. Biophys.*, **520**, 1-6, 2012.
5. **Zolkiewski, M.**, Chesnokova, L. S., and Witt, S. N.: "Reactivation of Aggregated Proteins by the ClpB/DnaK Bi-chaperone System", *Curr. Protoc. Protein Sci.* **83**:28.10.1-28.10.18. doi: 10.1002/0471140864.ps2810s83, 2016.

Peer-Reviewed Research Publications:

1. Antosiewicz, J., Hoiland, H., **Zolkiewski, M.** and Shugar, D.: "Quasichemical Interpretation of the Ultrasonic Velocity in Ternary Aqueous Systems", *J. Solution Chem.*, **16**, 285-294, 1987.
2. **Zolkiewski, M.**: "Kirkwood-Buff Integrals and Density Fluctuations in Aqueous Solution of Caffeine", *J. Solution Chem.*, **16**, 1025-1034, 1987.
3. **Zolkiewski, M.**, Krestov, G. A., V'yugin, A. I. and Zielenkiewicz, W.: "Enthalpies of Solution of 1,3-dimethyluracil and 1,3-diethylthymine in Water - N,N-dimethylformamide Mixtures", *Bull. Pol. Acad. Sci. Chem.*, **37**, 433-438, 1989.
4. **Zolkiewski, M.** and Zielenkiewicz, W.: "Enthalpies of Solvation of Alkylated Uracils in Water, Nonaqueous and Mixed Solvents", *J. Solution Chem.*, **20**, 517-530, 1991.
5. Kulinski, T., Bratek-Wiewiorowska, M. D., Wiewiorowski, M., Zielenkiewicz, A., **Zolkiewski, M.** and Zielenkiewicz, W.: "Comparative Calorimetric Studies on the Dynamic Conformation of Plant 5S rRNA: Structural Interpretation of the Thermal Unfolding Patterns for Lupin Seeds and Wheat Germ", *Nucl. Acids Res.*, **19**, 2449-2455, 1991.
6. Zielenkiewicz, A., **Zolkiewski, M.**, Zielenkiewicz, W. and Wiewiorowski, M.: "The Conformational Changes of 5S rRNA of Plant Origin in Presence of Anions PO_4^{3-} , NO_3^- , ClO_4^- , Cl^- , of tetra-Protonated Spermine and Magnesium Salts by Adiabatic Scanning Differential Calorimetry", *Thermochim. Acta*, **182**, 165-174, 1991.
7. Wiewiorowski, M., Zielenkiewicz, A., Zielenkiewicz, W. and **Zolkiewski, M.**: "The Conformational Changes of 5S rRNA of Plant Origin in Presence of Sperminium and Spermidinium Cations by Adiabatic Scanning Differential Calorimetry", *Thermochim. Acta*, **182**, 153-164, 1991.
8. Wiewiorowski, M., Zielenkiewicz, A., Zielenkiewicz, W. and **Zolkiewski, M.**: "The Conformational Changes of 5S rRNA of Plant Origin in Presence of Magnesium Cations by Adiabatic Scanning Differential Calorimetry", *Thermochim. Acta*, **182**, 143-152, 1991.
9. Ginsburg, A. and **Zolkiewski, M.**: "Differential Scanning Calorimetry Study of Reversible, Partial

- Unfolding Transitions in Dodecameric Glutamine Synthetase from *Escherichia coli*", *Biochemistry*, 30, 9421-9429, 1991.
10. **Zolkiewski, M.** and Ginsburg, A.: "Thermodynamic Effects of Active-Site Ligands on the Reversible, Partial Unfolding of Dodecameric Glutamine Synthetase from *Escherichia coli*: Calorimetric Studies", *Biochemistry*, 31, 11991-12000, 1992.
 11. Ginsburg, A. and **Zolkiewski, M.**: "Temperature and Guanidine Induced Unfolding of Dodecameric Glutamine Synthetase from *E. coli*", *Pure Appl. Chem.*, 66, 469-472, 1994.
 12. Redowicz, M. J., Martin, B., **Zolkiewski, M.**, Ginsburg, A. and Korn, E. D.: "Effects of Phosphorylation and Nucleotides on the Conformation of Myosin II from *Acanthamoeba castellanii*", *J. Biol. Chem.* 269, 13558-13563, 1994.
 13. **Zolkiewski, M.**, Redowicz, M. J., Korn, E. D. and Ginsburg, A.: "Thermally Induced Unfolding of *Acanthamoeba* Myosin II and Skeletal Muscle Myosin: Nucleotide Effects", *Arch. Biochem. Biophys.* 318, 207-214, 1995.
 14. **Zolkiewski, M.**, Nosworthy, N. J. and Ginsburg, A.: "Urea Induced Dissociation and Unfolding of Dodecameric Glutamine Synthetase from *Escherichia coli*: Calorimetric and Spectral Studies", *Protein Sci.* 4, 1544-1552, 1995.
 15. **Zolkiewski, M.**, Redowicz, M. J., Korn, E. D. and Ginsburg, A.: "Thermal Unfolding of *Acanthamoeba* Myosin II and Skeletal Muscle Myosin", *Biophys. Chem.* 59, 365-371, 1996.
 16. **Zolkiewski, M.**, Redowicz, M. J., Korn, E. D., Hammer, J. A. III and Ginsburg, A.: "A Two-State Unfolding of a Long Dimeric Coiled-Coil: the *Acanthamoeba* Myosin II Rod", *Biochemistry* 36, 7876-7883, 1997.
 17. Redowicz, M. J., Hammer, J. A., Bowers, B., **Zolkiewski, M.**, Ginsburg, A., Korn, E. D. and Rau, D. C.: "Flexibility of *Acanthamoeba* Myosin Rod Minifilaments", *Biochemistry* 38, 7243-7252, 1999.
 18. **Zolkiewski, M.**, Kessel, M., Ginsburg, A. and Maurizi, M. R.: "Nucleotide-dependent oligomerization of ClpB from *Escherichia coli*", *Protein Sci.*, 8, 1899-1903, 1999.
 19. **Zolkiewski, M.**: "ClpB cooperates with DnaK, DnaJ, and GrpE in suppressing protein aggregation: a novel multi-chaperone system from *Escherichia coli*", *J. Biol. Chem.*, 274, 28083-28086, 1999.
 20. Gong, X., Peng, T., Yakhnin, A., **Zolkiewski, M.**, Quinn, J., Yeaman, S. J. and Roche, T. E.: "Specificity Determinants for the Pyruvate Dehydrogenase Component Reaction Mapped with Mutated and Prosthetic Group Modified Lipoyl Domains", *J. Biol. Chem.* 275, 13645-13653, 2000.
 21. Zheng, L., Krishnamoorthi, R., **Zolkiewski, M.** and Wang, X.: "Distinct Ca²⁺-Binding Properties of Novel C2 Domains of Plant Phospholipase D alpha and beta", *J. Biol. Chem.* 275, 19700-19706, 2000.
 22. Barnett, M. E., Zolkiewska, A. and **Zolkiewski, M.**: "Structure and Activity of ClpB from *Escherichia coli*: Role of the Amino- and Carboxy-terminal Domains", *J. Biol. Chem.* 275, 37565-37571, 2000.
 23. Zavadzky, M., Chen, C. W., Huang, J. K., **Zolkiewski, M.**, Wen, L. and Krishnamoorthi, R.: "Disulfide Bond Effects on Protein Stability: Designed Variants of *Cucurbita maxima* Trypsin Inhibitor-V", *Protein Sci.* 10, 149-160, 2001.
 24. Urbauer, J. L., Adelman, K., Bieber Urbauer, R. J., Simeonov, M. F., Gilmore, J. M., **Zolkiewski, M.** and Brody, E. N.: "Conserved Regions 4.1 and 4.2 of σ^{70} Constitute the Recognition Sites for the Anti- σ Factor AsiA, and AsiA Is a Dimer Free in Solution", *J. Biol. Chem.* 276, 41128-41132, 2001.
 25. Tek, V. and **Zolkiewski, M.**: "Stability and Interactions of the Amino-terminal Domain of ClpB from *Escherichia coli*", *Protein Sci.* 11, 1192-1198, 2002.
 26. Liu, Z., Tek, V., Akoev, V. and **Zolkiewski, M.**: "Conserved Amino-acid Residues within the Amino-terminal Domain of ClpB are Essential for the Chaperone Activity", *J. Mol. Biol.* 321, 111-120, 2002.
 27. Barnett, M. E. and **Zolkiewski, M.**: "Site-directed Mutagenesis of Conserved Charged Amino-acid Residues in ClpB from *Escherichia coli*", *Biochemistry* 41, 11277-11283, 2002.
 28. Liu, Z., Zolkiewska, A. and **Zolkiewski, M.**: "Characterization of Human TorsinA and its Dystonia-Associated Mutant Form", *Biochem. J.* 374, 117-122, 2003.

29. Kedzierska, S., Akoev, V., Barnett, M. E. and **Zolkiewski, M.**: "Structure and Function of the Middle Domain of ClpB from *Escherichia coli*", *Biochemistry* **42**, 14242-14248, 2003.
30. Akoev, V., Gogol, E. P., Barnett, M. E. and **Zolkiewski, M.**: "Nucleotide-Induced Switch in Oligomerization of the AAA⁺ ATPase ClpB", *Protein Sci.* **13**, 567-574, 2004.
31. Chow, I. T., Barnett, M. E., **Zolkiewski, M.** and Baneyx, F.: "The N-terminal Domain of *Escherichia coli* ClpB Enhances Chaperone Function", *FEBS Lett.* **579**, 4242-4248, 2005.
32. Barnett, M. E., Nagy, M., Kedzierska, S. and **Zolkiewski, M.**: "The Amino-Terminal Domain of ClpB Supports Binding to Strongly Aggregated Proteins", *J. Biol. Chem.* **280**, 34940-34945, 2005.
33. Kedzierska, S., Chesnokova, L. S., Witt, S. N. and **Zolkiewski, M.**: "Interactions within the ClpB/DnaK bi-chaperone system from *Escherichia coli*", *Arch. Biochem. Biophys.* **444**, 61-65, 2005.
34. Nagy, M., Akoev, V. and **Zolkiewski, M.**: "Domain Stability in the AAA⁺ ATPase ClpB from *Escherichia coli*", *Arch. Biochem. Biophys.* **453**, 61-67, 2006.
35. Modrak-Wojcik, A., Stepniak, K., Akoev, V., **Zolkiewski, M.** and Bzowska, A.: "Molecular architecture of *E. coli* purine nucleoside phosphorylase studied by analytical ultracentrifugation and CD-spectroscopy", *Protein Sci.* **15**, 1794-1800, 2006.
36. Doyle, S. M., Shorter, J., **Zolkiewski, M.**, Hoskins, J. R., Lindquist, S. and Wickner, S.: "Asymmetric deceleration of ClpB and Hsp104 ATPase activity unleashes protein-remodeling activity", *Nature Struct. Mol. Biol.* **14**, 114-122, 2007.
37. Nagy, M., Wu, H.-C., Liu, Z., Kedzierska-Mieszkowska, S. and **Zolkiewski, M.**: "Walker-A threonine couples nucleotide occupancy with the chaperone activity of the AAA⁺ ATPase ClpB", *Protein Sci.* **18**, 287-293, 2009.
38. Nagy, M., Guenther, I., Akoyev, V., Barnett, M. E., Zavodszky, M. I., Kedzierska-Mieszkowska, S. and **Zolkiewski, M.**: "Synergistic cooperation between two ClpB isoforms in aggregate reactivation", *J. Mol. Biol.* **396**, 697-707, 2010.
39. Gilmore, J., Urbauer, R., Minakhin, L., Akoyev, V., **Zolkiewski, M.**, Severinov, K. and Urbauer, J.: "Determinants of Affinity and Activity of the Anti-Sigma Factor AsiA", *Biochemistry* **49**, 6143-54, 2010.
40. Zhang, T., Ploetz, E. A., Nagy, M., Doyle, S. M., Wickner, S., Smith, P. E. and **Zolkiewski, M.**: "Flexible connection of the N-terminal domain in ClpB modulates substrate binding and the aggregate reactivation efficiency", *Proteins* **80**, 2758-68, 2012.
41. Guenther, I., **Zolkiewski, M.** and Kedzierska-Mieszkowska, S.: "Cooperation between two ClpB isoforms enhances the recovery of the recombinant beta-galactosidase from inclusion bodies", *Biochem. Biophys. Res. Comm.* **426**, 596-600, 2012.
42. An, C., Hiromasa, Y., Lovell, S., **Zolkiewski, M.**, Tomich, J. M. and Michel, K.: "Biochemical characterization of SRPN6, a malaria parasite invasion marker in mosquitoes", *PLoS ONE* **7**(11), e48689, 2012.
43. Zhang, T., Kedzierska-Mieszkowska, S., Liu, H., Cheng, C., Ganta, R. R. and **Zolkiewski, M.**: "Aggregate-reactivation activity of the molecular chaperone ClpB from *Ehrlichia chaffeensis*", *PLoS ONE* **8**(5): e62454, 2013.
44. Park, S., Li, X., Kim, H. M., Singh, C. R., Tian, G., Hoyt, M. A., Lovell, S., Battaile, K. P., **Zolkiewski, M.**, Coffino, P., Roelofs, J., Cheng, Y., and Finley, D.: "Reconfiguration of the proteasome during chaperone-mediated assembly", *Nature* **497**, 512-516, 2013.
45. Ngansop, F., Li, H., Zolkiewska, A., and **Zolkiewski, M.**: "Biochemical characterization of the apicoplast-targeted AAA⁺ ATPase ClpB from *Plasmodium falciparum*", *Biochem. Biophys. Res. Comm.* **439**, 191-195, 2013.
46. Zacchi, L. F., Wu, H.-C., Bell, S. L., Millen, L., Paton, A. W., Paton, J. C., Thomas, P. J., **Zolkiewski, M.**, and Brodsky, J. L.: "The BiP molecular chaperone plays multiple roles during the biogenesis of TorsinA, a AAA⁺ ATPase associated with the neurological disease Early-Onset Torsion Dystonia", *J.*

- Biol. Chem. 289, 12727-12747, 2014.
47. Wielgus-Kutrowska, B., Modrak-Wójcik, A., Dyzma, A., Breer, K., **Zolkiewski, M.**, and Bzowska, A.: „Purine nucleoside phosphorylase activity decline is linked to the decay of the trimeric form of the enzyme”, Arch. Biochem. Biophys. 549, 40–48, 2014.
 48. Zblewska, K., Krajewska, J., **Zolkiewski, M.**, and Kędzierska-Mieszkowska, S.: „Role of the disaggregase ClpB in processing of proteins aggregated as inclusion bodies”, Arch. Biochem. Biophys. 555/556, 23-27, 2014.
 49. Woehl, J. L., Stapels, D. A. C., Garcia, B. L., Ramyar, K. X., Keightley, A., Ruyken, M., Syruga, M., Sfyroera, G., Weber, A. B., **Zolkiewski, M.**, Ricklin, D., Lambris, J. D., Rooijackers, S. H. M., and Geisbrecht, B. V.: “The Extracellular Adherence Protein from *Staphylococcus aureus* Inhibits the Classical and Lectin Pathways of Complement by Blocking Formation of the C3 Pro-Convertase”, J. Immunol., 193, 6161-6171, 2014.
 50. Li, H., Wu, H.-C., Liu, Z., Zacchi, L. F., Brodsky, J. L., and **Zolkiewski, M.**: “Intracellular Complexes of the Early-Onset Torsion Dystonia-Associated AAA+ ATPase TorsinA”, SpringerPlus, 3:743, 2014.
 51. Zhang, X., Meekins, D. A., An, C., **Zolkiewski, M.**, Battaile, K. P., Kanost M. R., Lovell, S., and Michel, K.: “Structural and inhibitory effects of hinge loop mutagenesis in Serpin-2 from the malaria vector *Anopheles gambiae*”, J. Biol. Chem., 290, 2946-2956, 2015.
 52. Wise, R., Duhachek-Muggy, S., Qi, Y., **Zolkiewski, M.**, and Zolkiewska, A.: “Protein disulfide isomerases in the endoplasmic reticulum promote anchorage-independent growth of breast cancer cells”, Breast Cancer Res. Treatment, 157, 241-252, 2016.
 53. Krajewska, J., Arent, Z., Więckowski, D., **Zolkiewski, M.**, and Kędzierska-Mieszkowska, S.: “Immunoreactivity of the AAA+ chaperone ClpB from *Leptospira interrogans* with sera from Leptospira-infected animals”, BMC Microbiology, 16, 151, 2016.
 54. Pieroni, M., Azzali, E., Basilico, N., Parapini, S., **Zolkiewski, M.**, Beato, C., Annunziato, G., Bruno, A., Vacondio, F., and Costantino, G.: “Accepting the Invitation to Open Innovation in Malaria Drug Discovery: Synthesis, Biological Evaluation and Investigation on the Structure–Activity Relationships of Benzo[b]thiophene-2-carboxamides as Antimalarial Agents”, J. Med. Chem., 60, 1959-1970, 2017.
 55. Kuczynska-Wisnik, D., Cheng, C., Ganta, R. R., and **Zolkiewski, M.**: ” Protein aggregation in *Ehrlichia chaffeensis* during infection of mammalian cells”, FEMS Microbiol. Lett., 364 (6): fnx059, 2017.
 56. Krajewska, J., Modrak-Wójcik, A., Arent, Z., Więckowski, D., **Zolkiewski, M.**, Bzowska, A., and Kędzierska-Mieszkowska, S.: “Characterization of the molecular chaperone ClpB from the pathogenic spirochaete *Leptospira interrogans*”, PLoS One, 12(7): e0181118, 2017.