

CURRICULUM VITAE**GENERAL****Prof. Teuta Pilizota**

School of Biological Sciences, College of Science and Engineering, University of Edinburgh

CAREER:

2020- Professor of biophysics, School of Biological Sciences, University of Edinburgh
2019- Director of Research, School of Biological Sciences, University of Edinburgh
2018-2020 Reader in biophysics, School of Biological Sciences, University of Edinburgh
2013-2018 Chancellor's Fellow with tenure at School of Biology, University of Edinburgh
2008-2012 Postdoctoral research fellow at Princeton University. Working with Prof Joshua W Shaevitz
2007-2008 Postdoctoral research fellow at the University of Oxford. Working together with Dr. Richard M Berry and Prof. Judith P Armitage

In April-July 2011 I had a short-term disability leave due to Staphylococcus Aureus hip bone infection and bacteraemia

UNIVERSITY EDUCATION:

2002 – 2007 D.Phil. in Biological Physics, University of Oxford, Department of Physics.
Under supervision of Dr. Richard M. Berry
1997 – 2002 Diploma in Physics, University of Zagreb, Faculty of Science, Department of Physics. grade average 4.82 (on a scale from 1 to 5)

TEACHING

2016, 2017 Lecturer at Hands-on Research in Complex Systems School, International Centre for Theoretical Physics, Trieste, teaching included practical experiment and career development training sessions and lectures for researchers from developing countries
2016-2017 Lecturer, Microbial World II (2nd year), School of Biology, University of Edinburgh, UK
2014- Lecturer, Molecular Microbiology III (3rd year), School of Biology, University of Edinburgh, UK
2013- Lecturer, Novel Approaches in Biotechnology and Membrane Biology (4th year), School of Biology, University of Edinburgh, UK
2012 Tutor, preparing adult learners (age 25-40) for GED exams, Princeton, New Jersey, USA.
2009 – 2010 Lecturer, Math 135, part of Mercer County Community College and The College of New Jersey AA degree, Edna Mahan Correctional Center for Women in Clinton, New Jersey, USA.
2006 – 2008 Marker, Biophysics course, Department of Physics, University of Oxford
2004 – 2005 Demonstrator, Biological physics practical course, Department of Physics, University of Oxford

TAUGHT PROGRAMS STUDENT SUPERVISION (as an independent PI):

Master Students: Supervised two ERASMUS exchanged student from University of Zagreb, Department of Biotechnology in 2014 and Department of Electrical Engineering and Computing in 2018, 3 School of Biological Sciences (Biotechnology and Synthetic Biology Master program) and 2 School of Physics and Astronomy Master students at the University of Edinburgh 2016-2019, one Master by Research student at School of Biological Sciences, University of Edinburgh and a MEng student from University of Glasgow, Bioengineering program in 2019
Under Graduate Students: Supervised 10 honors students from the University of Edinburgh in 2014-2020 (8 in Biotechnology honors and 2 in Biochemistry)
Supervised two summer project students from Department of Life Sciences, Peking University, Beijing, summer 2014

RESEARCH**EXTERNAL RESEARCH FUNDING:**

- 2020** IBiolC Feasibility Fund (with OGI bio Ltd), **co-I, £33,6k**
- 2020-2021(22)** ONR Global X Challenge: Bacterial Flagellar Motor as a multimodal biosensing chip, **PI \$252k (+\$288k)**
- 2020-2024** IBiolC: Technology development for *in situ* imaging of microbial cultures, with OGI Bio Ltd **PI, £136k**
- 2020 -2023** A Physiological Approach To Understanding Osmotically Induced Growth Modulation: Leverhulme Trust, **PI, £177k**
- 2019** BBSRC Pathfinder and iCURE, **PI, £70k**
- 2018-2021** Office of Naval Research (ONR) and Defense Advanced Research Projects Agency (DARPA), Bacterial flagellar motor as fast synthetic biosensor, **PI, \$390.6k**
- 2015-2016** Royal Society Brian Mercer Award, Microfluidic platform for monitoring product accumulation and 'health state' of bacterial hosts cells during bioproduction, **PI, £30k**
- 2015-2018** HFSP: Revealing bacterial free energy dynamics during loss of viability, **PI, \$1.05M**
- 2015-2020** BBSRC/EPSRC/MRC: Synth Mammalian: Edinburgh Mammalian Synthetic Biology Research Centre, **co-I, £13.2M**
- 2015-2019** BBSRC iCASE: Engineering bacterial hosts cells for robust growth at high external osmolarities, with INEOS as an industrial partner, **PI, £91k**
- 2015-2018** Cunningham Trust: Measuring phenotypical strategies bacteria employ to sustain viability under antibiotic treatment and identifying optimal strategies needed to combat them, **PI, £71k**
- 2015-2018** IBiolC: Preventing unwanted cytoplasmic leakage in downstream processing, with FujiFilm, **PI, £71k**
- 2014-2016** Crossing Biological Membrane BBSRC Network in Industrial Biotechnology and Bioenergy Proof of Concept Award and Business Interaction Voucher: Using *E. coli* turgor pressure regulation to optimize product excretion and prevent unwanted cytoplasmic leakage, with FujiFilm Diosynth Biotechnologies as industrial partner, **PI, 30k**

INTERNAL RESEARCH FUNDING AND SMALLER TRAVEL GRANTS:

- 2019-2020** Technology development for direct imaging of microbial cells in a Microbioreactor, EPSRC Impact Acceleration Award, **PI, £55k**
- 2019-2020** Fully automated, aerated and affordable microbioreactor technology, BBSRC Impact Acceleration Award, **PI, £19.5k**
- 2018** SUPA Distinguished Visitor Award, **£1.7k**
- 2018** Improving desert agriculture through insights in Nitrogen fixing bacteria, BBSRC GCRF Impact Acceleration Award, **PI, £2.7k**
- 2017** Information processing by bacterial chemotactic network, EPSRC NetworkPlus Emergence and Physics Far From Equilibrium, **PI, 1.9k**
- 2015** Microfluidic platform for monitoring product accumulation and 'health state' of bacterial hosts cells during bioproduction, EPSRC Impact Acceleration Award, **PI, £15.8k**
- 2015** Assessing growth of individual lactic acid bacterial cells in beer, EPSRC Impact Acceleration Award, **PI, £4.5k**
- 2015** Capturing dynamic cellular responses to mechanical stimuli, ISSF2 University of Edinburgh fund, **co-I, £29.5k**
- 2013** International Exchange Program, Taiwan MOS Bilateral Award, Royal Society of Edinburgh **PI, £2.7k**
- 2013** Novel approaches to bacterial stress response, ISSF University of Edinburgh fund, **PI, £20k**

RESEARCH STUDENT SUPERVISION:

Currently supervising 5 Ph.D. students (one in his 4th year, and three in 2nd year and one just started his 1st year).
Seven Ph.D. student successfully defended their thesis since 2013 (4 in 2019)

KNOWLEDGE EXCHANGE AND IMPACT

FUNDING RECEIVED FOR TRANSLATIONAL WORK WITH INDUSTRY:

- 2020** IBiolC Feasibility Fund (with OGI bio Ltd), **co-I, £33,6k**

- 2020-2024** IBiolC: Technology development for *in situ* imaging of microbial cultures, with OGI Bio Ltd **PI, £136k**
- 2019** EPSRC DTP CASE conversion scholarship with Chr. Hansen
- 2015-2016** Royal Society Brian Mercer Award, Microfluidic platform for monitoring product accumulation and 'health state' of bacterial hosts cells during bioproduct, **PI, £30k**
- 2015** Microfluidic platform for monitoring product accumulation and 'health state' of bacterial hosts cells during bioproduction, EPSRC Impact Acceleration Award, **PI, £15.8k**
- 2015** Assessing growth of individual lactic acid bacterial cells in beer, EPSRC Impact Acceleration Award, **PI, £4.5k**
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- 2015-2018** IBiolC: Preventing unwanted cytoplasmic leakage in downstream processing, with FujiFilm, **PI, £71k**
- 2014-2016** Crossing Biological Membrane BBSRC Network in Industrial Biotechnology and Bioenergy Proof of Concept Award and Business Interaction Voucher: Using *E. coli* turgor pressure regulation to optimize product excretion and prevent unwanted cytoplasmic leakage, with FujiFilm Diosynth Biotechnologies as industrial partner, **PI, 30k**

SPIN-OUT COMPANIES AND PATENTS:

- 2020** ÖGI Bio are Scottish Edge Finalists
- 2020** ÖGI Bio are Converge Semi-Finalists
- 2020** ÖGI Bio Ltd (<https://www.ogibio.com/>) startup registered under company house
- 2019** BBSRC Pathfinder and iCURE funding for market research, **PI, £65k**
- 2020-2021** Innovate UK: ÖGI Bio Ltd iCURE follow on fund application, **co-I, £249k**

DISSEMINATION OF GOOD PRACTICE IN KNOWLEDGE EXCHANGE:

- 2016** Collaboration with WEST brewery featured in Infinite Magazine, Edinburgh Research and Innovation (<http://www.ed.ac.uk/files/atoms/files/infinite-magazine-2016.pdf>)
- 2016** Collaboration with FujiFilm DioSynth featured in BBSRC CBMNet (Crossing Biological Membranes Network) documentary <https://www.youtube.com/watch?v=RtbNV73FGjs>

SCIENCE OUTREACH ACTIVITIES:

- 2016** Featured in the BBC Arabic Science documentary (https://www.youtube.com/watch?v=qs6cOxgBJ9U&list=PL63lwGZ_8vsmtS9CyVZSKiWLQmGw7H4IO&index=1)
- 2016** Feature in the leading daily Croatian national newspaper, discussing the profession of a modern academic (<http://www.jutarnji.hr/life/znanost/bit-i-znanstvenik-danas-covjek-koji-je-otkrio-bozju-cesticu-tvr-di-danas-ne-bih-mogao-dobiti-posao-u-akademskoj-zajednici.-je-li-u-pravu/3709260/>)
- 2013** Contributing to the School of Biology showcase at the Edinburgh International Science Festival, National Museum of Scotland, Edinburgh, UK
- 2013** Invited speaker at the Summer School of Science aimed at high-school students, Pozega, Croatia
- 2012** Team leader, Microscopy exploration station for middle school students, Science and Engineering EXPO, Princeton University, USA
- 2004 – 2007** Connect project leader, Connect is a project of NGO znanost.org (science.org) whose goals and activities include network building for knowledge professionals, reversing the brain-drain into the skills-gain, organizing annual gatherings of Croatian scientists working in the country and abroad, funding student projects and research experience
- 2003 – 2007** Executive board member, NGO znanost.org (science.org)
- 2002 – 2007** NGO znanost.org (science.org), member, znanost.org is a non-governmental organization whose function is to promote education, science and knowledge-based values in Croatian society through a hands-on approach

ACADEMIC LEADERSHIP, MANAGEMENT, AND CITIZENSHIP

- 2020** Co-director of Hands-on Research in Complex Systems School, August, International Centre for Theoretical Physics, Trieste, Italy (cancelled)
- 2019-2021** Organizing committee: 3rd Electrical Cell Biology Workshop
- 2019-** Research Director, School of Biological Sciences
- 2019** BBSRC Committee B Pool of experts member
- 2017-2018** Organizing committee member of Physics of Cells: From Biochemical to Mechanical
- 2017-2018** European Federation of Biotechnology meeting on Microbial stress, April 2018, International Scientific Advisory Board Member
- 2017** Global Challenges Research workshop with Mohammed V University in Rabat, Morocco, October 2017, organizer
- 2017-2018** School of Biological Sciences, UoE Internationalization Committee Member
- 2016-2017** Microbiology Society Annual Conference, April 2017, Synthetic and Systems Biology Session organizer
- 2016-** BBSRC Committee D Pool of experts member
- 2014-2018** School of Biological Sciences, UoE Research Committee Member
- 2014** External Master Thesis Examiner, University of Zagreb, Department of Biotechnology
- 2013-** Peer-reviewer for grant proposals to Swiss National Science Foundation, BBSRC, Netherlands Organization for Scientific Research, Cunningham Trust and Carnegie Trust
- 2013-** Peer-reviewer for several international, interdisciplinary journals: PNAS, Science Advances, Scientific Reports, Applied Physics, Biological Physics, Frontiers, etc.

EXTERNAL RECOGNITION/ESTEEM

- 2019** External Examiner, University of Oxford, Department of Zoology
- 2019** External Examiner, University of York, Department of Biology
- 2018-2020** Visiting Researcher, Department of Physics, University of Oxford
- 2018** Chief of Naval Research USA, Rear Admiral David A. Hahn visit to Pilizota lab
- 2007** Merit Award for exceptional performance, Department of Physics, University of Oxford
- 2007** Daiwa Adrian Prize for UK-Japan joint collaboration in *Analysis of the Mechanism and Structural Dynamics of the Bacterial Flagellar motor*, UK scientific research team

KEYNOTE AND INVITED SPEAKER AT INTERNATIONAL MEETINGS:

- 2021** 87th Harden Conference: Single-molecule bacteriology II, Oxford, UK (Invited Speaker)
- 2020** 'Microbial Cell Biology' meeting, October, Berlin, Germany, (Invited Speaker, postponed)
- 2020** UK/USA Synthetic Biology Showcase, May, UK (Invited Speaker, cancelled)
- 2020** Naoninbio conference, April, Guadeloupe, France, (Invited Speaker, postponed)
- 2020** 'Flagellar meeting', March Taiwan, (Invited Speake, Cancelled)
- 2020** EuroMicropH COST action open meeting (Invited Speaker)
- 2020** 'New Physical Models for Cell Growth', January, Aspen Centre for Physics, USA (Invited Speaker)
- 2019** SynBioUK, December, UK (Invited Speaker)
- 2019** 'Biophysics of Infection and Immunity: From Molecules to Cells to Tissues' symposium, University of York, November, UK (Invited Speaker)
- 2019** UK Biofluids Special Interest Group Meeting, September, University of Warwick (Invited Speaker)
- 2019** 13th Annual q-Bio Conference, August, San Francisco, USA (Invited Speaker)
- 2019** HFSP Annual Meeting, July, Tsukuba, Japan (Invited Speaker)
- 2019** UK/USA Synthetic Biology Showcase, Williams Formula 1 Conference Centre, Wantage, May UK (Invited Speaker)
- 2019** The physics of microorganisms II, April, Institute of Physics, London, UK (Invited Speaker)
- 2019** 2nd Electrical Cell Biology Workshop, Warwick University, UK (Invited Speaker)
- 2019** Quantitative Bacterial Cell Biology Symposium, January, Institute Pasteur, Paris (Invited Speaker)
- 2018** Biochemical Society Harden Conference on Single-Molecule Bacteriology, August, Oxford, UK (Invited Speaker)
- 2018** Integrative Cell Models for Disease Intervention, Banff International Research Station for Mathematical Innovation and Discovery, June Canada, (Invited Speaker)
- 2018** European Federation of Biotechnology meeting on Microbial stress, April, Ireland (Invited Speaker)
- 2018** American Physical Society March Meeting, L.A., USA (Invited Speaker)
- 2017** Nanofluidics in Biological Systems Workshop, Durham University, September (Invited Speaker)
- 2017** 19th IUPAB and 11th European Biophysical Society Meeting Annual Conference, July, HFSP session (**Invited Speaker**)

- 2017** Membrane Engineering Of Lipids And Proteins For Industrial Biotechnology And Bioenergy, June, Glasgow (**Invited Speaker**)
- 2016** Physics Meets Biology, September 2016, Clare College, Cambridge, UK (Invited Speaker)
- 2016** Know Biophysics Meeting, Amsterdam (Invited Speaker)
- 2015** BioSynSys2015 conference, University Paris Diderot, Paris, France (Keynote Speaker)
- 2015** Integrative Cell Models: Bridging Microbial Physiology and Systems Biology, Lorentz Centre, Leiden University, Leiden, Netherlands (Invited Speaker)
- 2013** Croatian Physical Society Meeting, Primosten, Croatia (Invited Speaker)

INVITED SPEAKER AT SUMMER SCHOOLS:

- 2020** MicroQUANT, Institut d'études Scientifiques de Cargèse, June, France
- 2020** Hands on Research in Complex Systems School, Aug-Sep 2020 ICTP, Trieste, Italy (**lecturer**)
- 2017** CM-CDT and Higgs Summer school, University of St. Andrews, August, St. Andrews UK
- 2017** Hands-on Research in Complex Systems School, August, International Centre for Theoretical Physics, Trieste, Italy (Invited Lecturer)
- 2016** From Molecules to Systems 2016 Winter School, University of Oxford, St. Catherine's College, Oxford, UK (Invited Speaker)
- 2016** Hands-on Research in Complex Systems School, July, International Centre for Theoretical Physics, Trieste, Italy (Invited Lecturer)

CONTRIBUTING SPEAKER AT INTERNATIONAL MEETINGS:

- 2014** Stochastic Biology Conference: from Cells to Populations, Institute of Science and Technology, (IST) Austria
- 2014** 16th European Congress on Biotechnology, Edinburgh, UK
- 2010** "Microbial Stress Response" Gordon Research Conference, Mount Holyoke College, MA, USA
- 2007** 51st Annual Meeting of American Biophysical Society, Baltimore USA
- 2005** Bionanotechnology Collaboration Conference, Tokyo Japan, December 2006
- 2005** Croatian Biophysical Society, Zagreb, Croatia
- 2005** 15th Congress of the IUPAB-5th EBSA Congress, Montpellier France

INVITED SPEAKER AT UK AND INTERNATIONAL UNIVERSITIES:

- 2017** University College London, Department of Physics, UK
- 2016** Newcastle University, Institute for Cell and Molecular Biosciences
- 2016** University of Durham, Department of Physics, UK
- 2016** Leeds University, Department of Physics, Leeds, UK
- 2016** Warwick University, Centre for Synthetic Biology, Warwick, UK
- 2016** Bristol University, Department of Applied Mathematics, Bristol, UK
- 2016** Imperial College London, Department of Structural Biology, UK
- 2016** National University of Singapore, Centre for Synthetic Biology, Singapore
- 2016** National University of Singapore, Department of Physics, Singapore
- 2015** MRC Clinical Sciences Centre, Imperial College London, London, UK
- 2015** Department of Biochemistry, University of Oxford, Oxford, UK
- 2014** Department of Physics, University of Zagreb, Zagreb, Croatia
- 2014** College of Life Sciences, University of Dundee
- 2014** Institute of Microbiology and Infection, School of Biosciences, University of Birmingham, Birmingham, UK
- 2014** Department of Physics, National Central University, Jhongli, Taiwan
- 2013** Department of Physics, University of Sheffield, Sheffield, UK
- 2012** National Institute for Medical Research, London, UK
- 2012** Department of Biology, York University, York, UK
- 2012** School of Biology, University of Edinburgh, Edinburgh, UK
- 2010** Department of Physiology and Biophysics, University of Washington, Seattle, USA
- 2010** Clarendon Laboratory, Department of Physics, University of Oxford, Oxford UK
- 2008** Chemical and Process Engineering Department, Sheffield University seminar series, Sheffield UK
- 2007** Institute of Scientific and Industrial Research, Department of Single Molecule Biophysics, Osaka University, Osaka, Japan

LIST OF PUBLICATIONS:

Schwarz-Linek J, Krasnopeeva E, Douarchec C, Arlt J, **Pilizota T**, Poon WCK and Martinez VA 'Motility turns sour: how a combination of environmental factors prevents swimming in dense suspensions of *E. coli*' (In preparation)

Wong F**, Wilson S, Helbig R, Hegde S, Aftenieva O, Zheng H, Liu C, **Pilizota T**, Garner EC, Amir A**, Renner LD** 'Single-cell lytic probing of the bacterial cell envelope' (Submitted)

Teraddot G, Krasnopeeva E, Swain S, **Pilizota T**. 'Escherichia coli's ability to maintain intracellular pH changes with the Proton Motive Force' (In preparation)

Voliotis M, Rosko J, **Pilizota T**, Liverpool T. 'Steady state running rate sets the speed and accuracy of accumulation of swimming bacterial populations' (<https://arxiv.org/abs/2007.08335>, Under Review)

Mancini L, **Pilizota T****. 'Environmental conditions define the energetics of bacterial dormancy and its antibiotic susceptibility' (<https://www.biorxiv.org/content/10.1101/2020.06.18.160226v1>, Under Review)

Krasnopeeva E, Barboza-Perez U E, Rosko J, **Pilizota T****, Lo C J** 'Bacterial Flagellar Motor as a Multimodal Biosensor' *Methods* 2020; In press (<https://doi.org/10.1016/j.ymeth.2020.06.012>)

Schofiel Z*, Meloni G*, Tran P, Zerfass C, Sena G, Hayashi Y, Grant M, Contera SA, Minter SD, Kim M, Prindle A, Rocha P, Djamgoz MBA, **Pilizota T**, Unwin PR, Asally M**, Soyer OS** 'Bioelectrical understanding and engineering of cell biology' *J. R. Soc. Interface*, 2020;17: 20200013

Paraschiv A, Hegde S, Ganti R, **Pilizota T**, Saric A** Dynamic clustering regulates activity of mechanosensitive membrane channels, *Physical Review Letters*, 2020; 124:048102

Mancini L, Tian T*, Terradot G*, Pu Y, Li Y, Lo CJ, Bai F, **Pilizota T**** A general work-flow for characterization of Nernstian dyes and their effects on bacterial physiology, *Biophys J*, 2020;118(1): 4-14

Wang YK*, Krasnopeeva E*, Bai F, **Pilizota T****, Lo CJ** Comparison of Escherichia coli surface attachment methods for single-cell, in vivo microscopy, *Scientific Reports*, 2019;9:19418

Arlt J, Martinez VA, Dawson A, **Pilizota T**, Poon WCK** 'Dynamics-dependent density distribution in active suspensions' *Nature Communications* 2019;10: 2321

*Krasnopeeva E, Lo CJ, **Pilizota T**** 'Single-cell bacterial electrophysiology reveals mechanisms of stress induced damage' *Biophys. J.* 2019;116(12): 2390-2399

Pilizota T and Ya-Tang Yang**. Flexible and affordable microbial cultivation techniques for synthetic and systems biology, *Frontiers in Microbiology*, 2018;9:1666 doi=10.3389/fmicb.2018.01666

*Arlt J, Martinez V A, Dawson A, **Pilizota T** and Poon WCK**. Spatially-controlled activity of light-driven bacteria. *Nature Communications* 2018;9: 768

Rosko J, Martinez V A, Poon WCK and **Pilizota T****. Osmotaxis in *Escherichia coli* through changes in motor speed *PNAS* September 2017; doi: 10.1073/pnas.1620945114

Stevenson K, McVey A F, Clark I B N, Swain P S and **Pilizota T****. General calibration of microbial growth in microplate readers. *Scientific Reports*. 2016; 6:38828

Swain P S**, Stevenson K, Leary A, Montano-Gutierrez L F, Clark I B N, Vogel J and **Pilizota T**. Inferring time-derivatives, including cell growth rates, using Gaussian processes. *Nature Communications*. 2016; 7:13766

Buda R, Liu Y*, Yang J*, Hegde S*, Stevenson K, Bai F** and **Pilizota T****. Dynamics of *Escherichia coli*'s passive response to sudden decreases in external osmolarity. **PNAS**. September 2016, doi:10.1073/pnas.1522185113

Fletcher KA, **Pilizota T**, Rhys-Davies P, French, CE. Characterization of the effects of n-butanol on the cell envelope of *E. coli*. **Applied Microbiology and Biotechnology**. September 2016, 1-7. doi:10.1007/s00253-016-7771-6

Schwarz-Linek J, Arlt J, Jepson A, Dawson A, Vissers T, Miroli D, **Pilizota T**, Martinez VA and Poon W. *Escherichia coli* as a model active colloid. **Colloids and Surfaces B: Biointerfaces**. 2016. 137:2-16

Pilizota T**, Shaevitz JW. Origins of cell shape and growth rate changes at high external osmolarity. **BIOPHYS J** October 2014, 107(8):1962-1969

Pilizota T, Shaevitz JW. Plasmolysis and cell shape depend on solute outer membrane permeability during hyperosmotic shock in *Escherichia coli*. **BIOPHYS J** 18 June 2013, 104(12):2733-2742

Lo CJ, Sowa Y, **Pilizota T**, Berry RM. The mechanism and kinetics of a sodium-driven bacterial flagellar motor. **PNAS**. July 2013.110(28):E2544-51

Bilyard T*, Nakanishi-Matsui* M, Steel B, **Pilizota T**, Nord A, Hosokawa H, Futai M, Berry RM. High-resolution single-molecule characterization of the enzymatic states in *Escherichia coli* F₁-ATPase. **PHIL TRANS R SOC. B** 24 December 2012. 368(1611):20120023.

Pilizota T, Shaevitz JW. Fast, multiphase volume adaptation to hyperosmotic shock by *Escherichia Coli*. **PLoS ONE** 2012 Apr; 7(4): e35205

Fan B, Branch RW*, Nicolau DV*, **Pilizota T**, Maini PK, Berry RM. Conformational spread as a mechanism for cooperativity in the bacterial flagellar switch. **SCIENCE**. 2010 Feb; 327(5966): 685-9. (Mentioned in Perspectives: An Ensemble View of Allostery, Vincent J. Hilser, *Science* 5 February 2010: 653-654). * These authors contributed equally

Pilizota T, Brown M*, Leake MC, Branch RW, Berry RM, Armitage JP. A molecular brake, not a clutch, stops the *Rhodobacter sphaeroides* flagellar motor. **PNAS**. 2009 Jul;106(28):11582-7. (Mentioned in 'In This Issue', PNAS 2009 106 (28) 11427-11428) * These authors contributed equally

Inoue Y, Lo CJ, Fukuoka H, Takahashi H, Sowa Y, **Pilizota T**, Wadhams G, Homma M, Berry RM, Ishijima A. Torque-speed relationships of Na⁺-driven chimeric flagellar motors in *Escherichia coli*. **J MOL BIOL**. 2008 Mar; 376(5):1251-9.

Lo CJ, Leake MC, **Pilizota T**, Berry RM. Non-equivalence of membrane voltage and ion-gradient as driving forces for the bacterial flagellar motor at low load. **BIOPHYS J**. 2007 Jul; 93(1):294-302.

Pilizota T, Bilyard T, Bai F, Hosokawa H, Futai M, Berry RM. A programmable optical angle clamp for rotary molecular motors, **BIOPHYS J**. 2007 Jul; 93(1):264-275

Pilizota T, Lucic B, Trinajstic N. Use of variable selection in modeling the secondary structural content of proteins from their composition of amino acid residues. **J CHEM INF COMPUT SCI**. 2004 Jan-Feb;44(1):113-21.

Book contributions:

Pilizota T, Sowa Y, Berry RM. Chapter: Single-Molecule Studies of Rotary Proteins in Handbook of Single-Molecule Biophysics, Springer. 2009. Editors: Peter Hinterdorfer and Antoine van Oijen