

Curriculum Vitae - current December, 2025

STEPHENTOBIA SABEDON

Professor, Department of Microbiology, The Ohio State University
1680 University Dr., Mansfield, OH 44906
abedon.1@osu.edu

Research Interests

Evolutionary Ecology, Microbial Ecology, Applied Ecology
Phage Evolutionary Ecology (adaptation & optimization)
Phages and Spatial Structure (plaques & biofilms)
Phage Therapy (especially pharmacology)

Important Links

Ranked # 41,347 on the September, 2025, Stanford scholars list:
<https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/8>
(and have been ranked there since 2020: 46,675, 54,834, 62,115, 66,740, 88,465)

scholar.google.com/citations?hl=en&user=ohoN070AAAAJ

Statistics (Saturday, September 6, 2025): 18,155 citations, 63 h-index, 122 i10 index
(since 2020 = 10602, 50, and 105, respectively, plus ≥ 1750 citations this year-to-date)

www.scopus.com/authid/detail.uri?authorId=6603623081

pubmed.ncbi.nlm.nih.gov/?term=Abedon%20ST

orcid.org/0000-0001-9151-2375

PubMed author ID=40872808

phage.org

phage-therapy.org

biologyaspoetry.com

abedon.phage.org

EDUCATION

- | | | |
|------|---|--|
| 1990 | <ul style="list-style-type: none">• Ph.D.• Major:• Minor:• Dissertation title:• Research advisor: | University of Arizona
Microbiology (molecular genetics concentration)
Ecology and Evolutionary Biology
<i>The Ecology of Bacteriophage T4</i>
arizona.openrepository.com/arizona/handle/10150/185040
Harris Bernstein, Ph.D. |
| 1984 | <ul style="list-style-type: none">• BS• Major: | University of Massachusetts at Amherst
Biochemistry (<i>cum laude</i> ; Phi Beta Kappa) |

OVERVIEW

I describe myself as a microbial evolutionary ecologist, meaning that I am interested in the “why” of microorganism adaptation. The organisms I specifically research are bacteriophages, also known as phages, which are the viruses of bacteria. I study these particularly in terms of the evolution of individual-infection duration. I also have an interest in and publish on the field of phage therapy, which is the use of bacteriophages as antibacterial agents, where I specialize in the pharmacodynamics of these “living” antibacterials. I have received two NIH grants, one as Principle Investigator and one as Co-Investigator.

I received my Ph.D. in 1990, from the University of Arizona, in Microbiology (and Immunology) with a concentration in Molecular Genetics and a minor in Ecology and Evolutionary Biology. There I was a NIH pre-doctoral fellow.

I did two postdocs, one informally at the University of Arizona and then another (formal) from 1993 to 1995 at the University of Pennsylvania in the Department of Microbiology. For the latter I was an NIH post-doctoral fellow.

I was hired at OSU for Fall of 1995 to the Department of Microbiology and have since been at OSU now for over 30 years. Here I have taught over 11 different courses (consisting of 11 different full-term preps) along with 4 different labs (non-majors biology, majors biology 1 and 2, and microbiology; 11 + 4 = 15 different preps). The non-lab courses include one on Microbial Evolution, which I originated at OSU and which I taught over five separate terms to honors students. I was promoted to Professor in 2019.

My academic YouTube channel, youtube.com/@BiologyasPoetry, has ~1600 subscribers, over 300 videos, and ~500,000 views as have been watched in total over approaching 20,000 hours. I have six videos that have been viewed over 20,000 times, including two that have been viewed over 50,000 times. I have also authored five unpublished textbooks which I either do or have taught from multiple times. These include *Biology as Poetry: Introductory Biology*, *Biology as Poetry: Introductory Biology Laboratories*, *Biology as Poetry: Human Biology*, *Micro 4000 Laboratories*, and *Microbial Evolution*.

I have over 150 publications including two single-authored monographs, five multi-authored monographs (one as sole editor and four as co-editor), and six journal special issues, two as sole editor. One of those special issues seems to be the first online journal special issue in the field of phage therapy, and which alone has collectively been cited over 2500 times. My first publication was in 1989 and it has been cited well over 100 times; officially it is 177 times according to Google Scholar.

Also according to Google Scholar (scholar.google.com/citations?hl=en&user=ohoN070AAAAJ), my work has been cited well over 10,000 times (officially it is over 16,000 times, but likely a few thousand of those are self citations). Over the past four years I have been cited each year approximately 1500 times, non-self citations. I have four publications that have been cited over 1000 times and six that have been cited over 500 times. My h-index is 63 and my i10 index is 122. Approximately 30 of my publications have been cited over 100 times.

I have never officially directly supervised a graduate student or a postdoc but have supervised ten or so undergraduates over the years. The latter have served as co-authors on four different publications. I have also edited well over 1,000,000 published words or roughly 100 individual chapters.

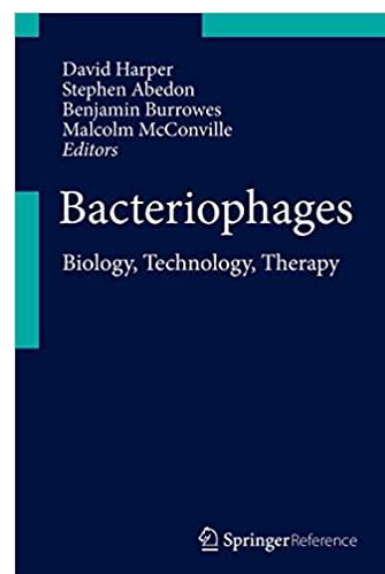
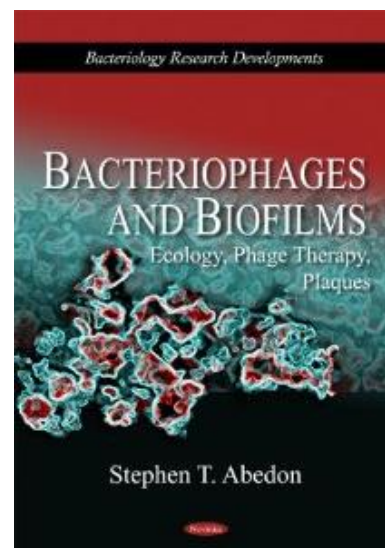
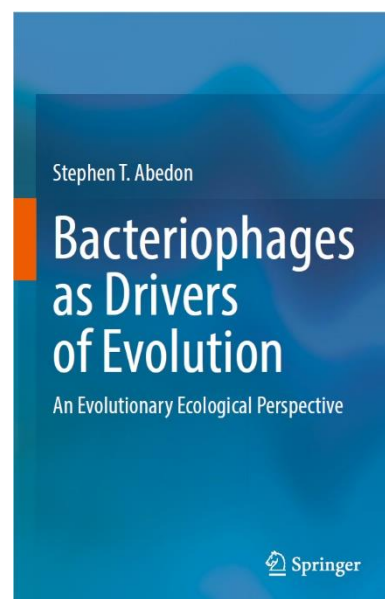
I am ranked # 43,347 on the August, 2024, Stanford scholars list, which I believe is the highest ranking of any current and possibly also former, core researcher in my OSU department. Otherwise, to be found on this list one has to rank in the top 1-2% of academics worldwide. I suspect that I am ranked this high owing to a combination of the number of times my publications have been cited and my high number of first, corresponding, and especially single-authored publications.

PROFESSIONAL EXPERIENCE

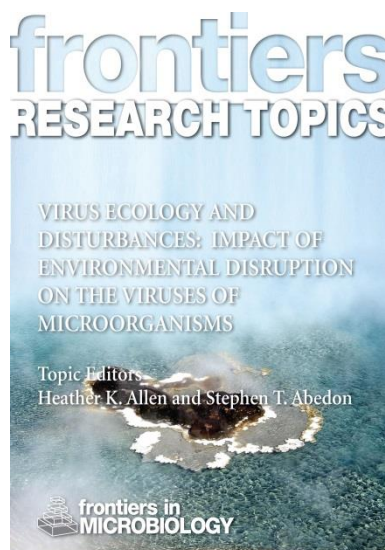
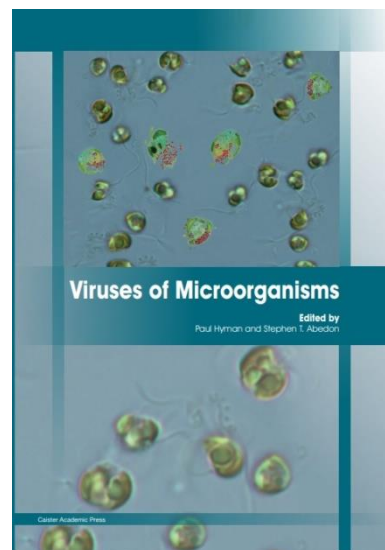
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|--------------|--|
| 2019-present | <ul style="list-style-type: none"> • Professor • Department of Microbiology; The Ohio State University |
| 2001-2019 | <ul style="list-style-type: none"> • Associate Professor • Department of Microbiology; The Ohio State University |
| 1995-2001 | <ul style="list-style-type: none"> • Assistant Professor • Department of Microbiology; The Ohio State University |
| 1993-1995 | <ul style="list-style-type: none"> • NIH Post-Doctoral Trainee • Dept. Microbiology, U. of Pennsylvania; Lab. of Robert W. Doms • Immunogenic characterization of HIV-1 transmembrane protein |
| 1990-1993 | <ul style="list-style-type: none"> • Research Associate • Dept. Microbiol. & Immunol., U. of AZ; Lab. of Harris Bernstein • Characterization and genetic analysis of T4 bacteriophage lysis |
| 1992-1993 | <ul style="list-style-type: none"> • Computer Software Development • MicroDude Computer Software, sole proprietorship, Tucson, AZ • Application development—Borland Turbo Pascal compiler |
| 1990 | <ul style="list-style-type: none"> • Research Assistant • Dept. Microbiol. & Immunol., U. of AZ; Lab. of John Spizizen • Plasmid curing of an industrial strain of <i>Bacillus thuringiensis</i> |

CITATIONS, AWARDS, GRANTS, ETC.

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|-----------|---|
| Ongoing | <ul style="list-style-type: none"> • 2010 <i>Curr. Pharm. Biotechnol.</i> collection of articles I edited, >2500 total citations according to Google Scholar |
| Ongoing | <ul style="list-style-type: none"> • Top 1, 3, 9, and 10 most read articles and Top 2, 3, and 4 most cited articles in <i>Bacteriophage</i> (Taylor & Francis, now defunct; as had been kept track of at tandfonline.com/toc/kbac20/current) |
| 2022-2027 | <ul style="list-style-type: none"> • Co-investigator, NIH/NIAID R01, \$770,000 including overhead. |



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| 2020-2022 | <ul style="list-style-type: none"> • PI, NIH/NIAID R21, \$429,000 including overhead. |
| 2020 | <ul style="list-style-type: none"> • Recipient of annual OSU-Mansfield Excellence in Scholarship award. |
| 2010 | <ul style="list-style-type: none"> • Quoted in <i>Nature Reviews Microbiology</i> editorial (8:610). |
| 2008 | <ul style="list-style-type: none"> • Awarded extramural grant as PI, “Analysis of the Advancements in Bacteriophage Therapies for Use in Clinical and Veterinary Applications,” by Battelle National Biodefense Institute, 9 months for \$72,658.58 (including overhead). |
| 2008 | <ul style="list-style-type: none"> • Awarded intramural grant as co-PI (Jeff LeJeune, PI), Identification of microbiological factors that suppress <i>E. coli</i> O157 in livestock bedding, two years for \$16,600 (my share). |
| 2004 | <ul style="list-style-type: none"> • \$12,000 awarded for intramural industry matching grant, jointly funded by OSU OARDC-RECGP and Infectech Inc.: Sreevatsan S., Abedon, S. T. Isolation and Characterization of <i>Mycobacterium avium</i> subspecies <i>paratuberculosis</i>. |
| 2003 | <ul style="list-style-type: none"> • \$15,000 awarded for development of honors Microbial Evolution course by OSU Honors and Scholars Center (10 of 26 proposals were funded) |
| 2003 | <ul style="list-style-type: none"> • Publication (so far as we can currently tell) of the first review of phage use in foods, Goodridge and Abedon, <i>SIM News</i> |
| 2002-2003 | <ul style="list-style-type: none"> • Office of International Affairs (OSU) Faculty Int. Research Travel Grant (\$1,500) |
| 2001 | <ul style="list-style-type: none"> • Abedon <i>et al.</i> (2001) featured in Nov., 2001 (Vol. 67) Journal Highlights section of <i>ASM News</i>. |
| 2000 | <ul style="list-style-type: none"> • Review of website (phage.org) in 13 Oct., 2000, issue of <i>Science</i>. |
| 1999-2000 | <ul style="list-style-type: none"> • Mansfield-campus professional-development grant (\$1000) |
| 1999 | <ul style="list-style-type: none"> • Book-jacket “blurb” of Bill Summers' book <i>Felix d'Herelle and the Origins of Molecular Biology</i> for Yale University Press |



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|-----------|--|
| 1996-1997 | • Competitive OSU intramural seed grant (\$16,385) |
| 1993-1995 | • NIH post-doctoral training grant |
| 1986-1990 | • NIH pre-doctoral training grant |
| 1985-1986 | • Department-based pre-doctoral fellowship |
| 1984-1985 | • Department-based tuition-waiver |
| 1984 | • Graduated <i>cum laude</i> , Phi Beta Kappa |
| 1981 | • CRC inorganic chemistry award |

RESEARCH

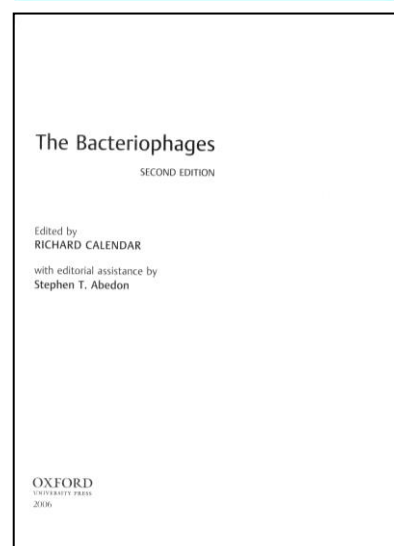
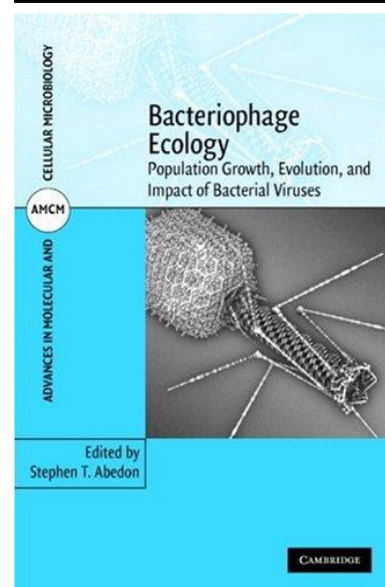
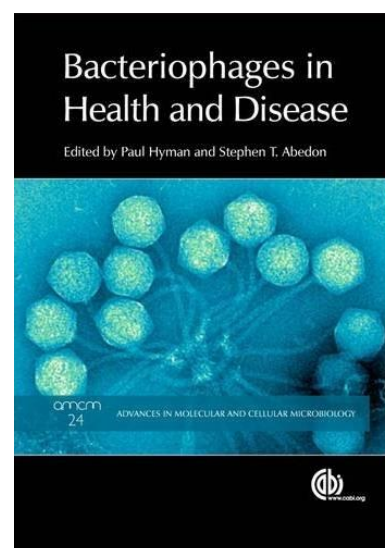
(coding: **accepted/in press**, **submitted**, **in preparation**)

SINGLE-AUTHORED MONOGRAPHS

- 1) **Abedon, S. T.** (sole author) (2022). *Bacteriophages as Drivers of Evolution: An Evolutionary Ecological Perspective*. Springer. link.springer.com/book/10.1007/978-3-030-94309-7, doi.org/10.1007/978-3-030-94309-7 **[synthesis]** **[review]**
- 2) **Abedon, S. T.** (sole author) (2011). *Bacteriophages and Biofilms: Ecology, Phage Therapy, Plaques*. Nova Science Publishers, Hauppauge, New York. books.google.com/books?id=cIqlcQAACAAJ **[synthesis]** **[review]**

EDITED MONOGRAPHS

- 3) Harper, D. R., **Abedon, S. T.**, Burrows, B. H., McConville, M. L. (editors) (2021) *Bacteriophages: Biology, Technology, Therapy*. Springer. 40 chapters, 1224 pages. springer.com/gp/book/9783319419855, springer.com/us/book/9783319419855, doi.org/10.1007/978-3-319-40598-8 **[editing]**
- 4) Hyman, P., **Abedon, S. T.** (editors) (2018). *Viruses of Microorganisms*, Caister Academic Press, Norwich, UK. caister.com/vom, doi.org/10.21775/9781910190852 **[editing]**
- 5) Hyman, P., **Abedon, S. T.** (editors) (2012). *Bacteriophages in Health and Disease*, CABI Press. Wallingford, Oxfordshire, UK. books.google.com/books?id=Af7-eq8iyVgC **[editing]**
- 6) **Abedon, S. T.** (editor) (2008). *Bacteriophage Ecology: Population Growth, Evolution, and Impact of Bacterial Viruses*. Cambridge University Press. doi.org/10.1017/CBO9780511541483 (on Sept. 24, 2020, this was the Google “I’m feeling lucky search” on “Bacteriophage Ecology” not in quotes: cambridge.org/core/books/bacteriophage-



ecology/17FAA5647551E145800AA39AA237932E); for review, see journals.uchicago.edu/doi/abs/10.1086/650260 [editing]

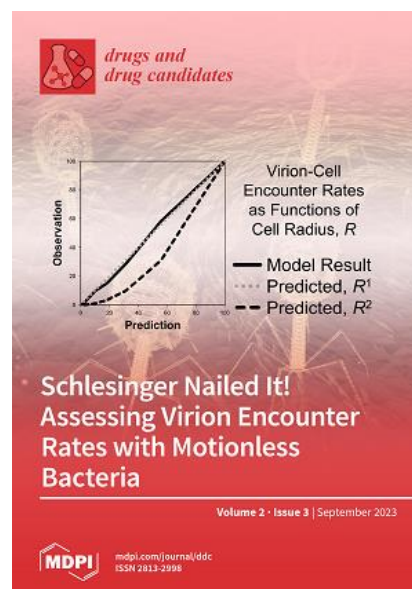
- 7) Calendar, R. L. (editor), **Abedon, S. T.** (acknowledged on title page as “with editorial assistance by”) (2006). *The Bacteriophages*, 2nd edition. Oxford University Press. (review of all of phagology; see thebacteriophages.org for chapters and list of contributors) global.oup.com/academic/product/the-bacteriophages-9780195148503 [editing]

EDITED JOURNAL SPECIAL ISSUES

- 8) **Abedon, S. T.**, Danis-Wlodarczyk, K., Kebriaei, R., Petrovic Fabijan, A. (editors) (2023). *Bacteriophages and Their Enzymes as Antibacterial Agents*. Special Issue of *Cells*, 9 articles published (IF = 7.7). mdpi.com/journal/cells/special_issues/FQP96K88XU [editing]
- 9) **Abedon, S. T.**, Alves, D. R., (editors) (2020 and 2022). *Phage Therapy and Phage-Mediated Biological Control*. Special issue of *Pharmaceuticals*, containing 10 and 12 published articles (IF = 5.2). mdpi.com/journal/pharmaceuticals/special_issues/Phage_Therapy and mdpi.com/journal/pharmaceuticals/special_issues/Phage_Therapy_2 [editing]
- 10) **Abedon, S. T.** (editor) (2020 and 2022). Special issue on “Phage Ecology, a.k.a., Bacteriophage Ecology”, as published in *Viruses*, 8 and 5 published articles (IF = 5.8). mdpi.com/journal/viruses/special_issues/phage_ecology and mdpi.com/journal/viruses/special_issues/phage_ecology2021 [editing]
- 11) **Abedon, S. T.**, García, P., Mullany, P., Aminov, R. (editors) (2017). *Phage Therapy: Past, Present and Future*. Published as an ebook in association with *Frontiers in Microbiology*. frontiersin.org/books/Phage_Therapy_Past_Present_and_Future/1309 [editing]
- 12) Allen, H. K., **Abedon, S. T.** (editors) (2015). *Viral Ecology and Disturbances: Impact of Environmental Disruption on the Viruses of Microorganisms*. Published as an ebook in association with *Frontiers in Microbiology*. journal.frontiersin.org/researchtopic/1525 [editing]
- 13) **Abedon, S. T.** (editor) (2010). Special topics issue on “The ‘Nuts and Bolts’ of Phage Therapy” *Current Pharmaceutical Biotechnology* 11(1). (6-article review of phage therapy edited as the equivalent of a monograph on the subject of phage therapy; articles altogether have been cited in excess of 1,500 times) eurekaselect.com/issue/3508 [editing]

PUBLICATIONS—Peer-Reviewed

- 14) **Abedon, S. T.** (2025?). Bacteriophage titering by optical density means: KOTE assays. *Open Life Sciences* (currently in press).
- 15) **Abedon, S. T.** (2025). Optical Density-Based Methods in Phage Biology: Titering, Lysis Timing, Host Range, and Phage-Resistance Evolution. *Viruses* 17(12):1573 mdpi.com/1999-4915/17/12/1573 [review] [experimental]
- 16) **Abedon, S. T.** (2025). Dual-Receptor Recognition, Lysis Inhibition, Endolysin Release, and Reaction–Diffusion as Alternative Explanations. Comment on Rojero et al. Bypassing Evolution of Bacterial Resistance to Phages: The Example of Hyper-Aggressive Phage 0524phi7-1. *Int. J. Mol. Sci.* 2025, 26, 2914. *International Journal of*



- Molecular Sciences* 26(7):2914 [mdpi.com/1422-0067/26/23/11368](https://doi.org/10.3390/molecules26072914) [comment].
- 17) **Abedon, S. T.** (2025). Phage Therapy: Combatting Evolution of Bacterial Resistance to Phages. *Viruses* 17(8):1094. pubmed.ncbi.nlm.nih.gov/40872808/ [review]
 - 18) **Abedon, S. T.** (2023). How Simple Maths Can Inform Our Basic Understanding of Phage Therapy. *Clinical Infectious Diseases* 77:S401-S406. pubmed.ncbi.nlm.nih.gov/37932116/ [review]
 - 19) **Abedon, S. T.** (2023). Automating Predictive Phage Therapy Pharmacology. *Antibiotics* 12(9):1423. pubmed.ncbi.nlm.nih.gov/37760719/ [review] [theoretical]
 - 20) **Abedon, S. T.** (2023). Schlesinger Nailed It! Assessing a Key Primary Pharmacodynamic Property of Phages for Phage Therapy: Virion Encounter Rates with Motionless Bacterial Targets. *Drugs and Drug Candidates* 2(3):673-688. [mdpi.com/2813-2998/2/3/34](https://doi.org/10.3390/drugs2030034) [review] [theoretical] [Chosen as Journal Issue Cover: [mdpi.com/2813-2998/2/3](https://doi.org/10.3390/drugs2030034)]
 - 21) Petrovic Fabijan, A., Iredell, J., Danis-Wlodarczyk, K., Kebriaei, R., **Abedon, S. T.*** (2023). Translating Phage Therapy Into the Clinic: Recent Accomplishments but Continuing Challenges. *PLoS Biology* 21(5):e3002119. pubmed.ncbi.nlm.nih.gov/37220114/ [review]
 - 22) **Abedon, S. T.** (2023). Bacteriophage Adsorption: Likelihood of Virion Encounter with Bacteria and Other Factors Affecting Rates. *Antibiotics* 12(4):723. pubmed.ncbi.nlm.nih.gov/37107086/ [review]
 - 23) **Abedon, S. T.** (2023). Ecology and Evolutionary Biology of Hindering Phage Therapy: The Phage Tolerance vs. Phage Resistance of Bacterial Biofilms. *Antibiotics* 3(2):245. pubmed.ncbi.nlm.nih.gov/36830158/ [review]
 - 24) **Abedon, S. T.** (2022). Pathways to Phage Therapy Enlightenment, or Why I've Become a Scientific Curmudgeon. *PHAGE: Therapy, Applications, and Research* 3(2):95-97. pubmed.ncbi.nlm.nih.gov/36157282/ [opinion]
 - 25) **Abedon, S. T.** (2022). Further Considerations on How to Improve Phage Therapy Experimentation, Practice, and Reporting: Pharmacodynamics Perspectives. *PHAGE: Therapy, Applications, and Research* 3(2):98-111. pubmed.ncbi.nlm.nih.gov/36148139/ [opinion] [theoretical]
 - 26) Editor's Choice Danis-Wlodarczyk, K. M.* , Wozniak, D. J., **Abedon, S. T.** (2021). Treating Bacterial Infections with Bacteriophage-Based Enzybiotics: In Vitro, In Vivo, and Clinical Application. *Antibiotics* 10(12):1497. pubmed.ncbi.nlm.nih.gov/34943709/ [review] [Highly Accessed]
 - 27) Danis-Wlodarczyk, K. M., Cai, A., Chen, A., Gittrich, M. R., Sullivan, M. B., Wozniak, D. J.* , **Abedon, S. T.*** (2021). Friends or Foes? Rapid Determination of Dissimilar Colistin and Ciprofloxacin Antagonism of *Pseudomonas aeruginosa* Phages. *Pharmaceuticals* 14(11):1162. pubmed.ncbi.nlm.nih.gov/34832944/ [experimental]
 - 28) Feature Paper **Abedon, S. T.*** , Danis-Wlodarczyk, K. M., Alves, D. R. (2021). Phage Therapy in the 21st Century: Is There Modern, Clinical Evidence of Phage-Mediated Efficacy? *Pharmaceuticals* 14(11):1157. pubmed.ncbi.nlm.nih.gov/34832939/ [opinion] [Highly Accessed]

* Corresponding author

- 29) Editor's Choice **Abedon, S. T.**^{*}, Danis-Wlodarczyk, K. M.[†], Wozniak, D. J. (2021). Phage Cocktail Development for Bacteriophage Therapy: Toward Improving Spectrum of Activity Breadth and Depth. *Pharmaceuticals* 14(10):1019. pubmed.ncbi.nlm.nih.gov/34681243/ [opinion] [theoretical] [Highlighted on Journal Main Page] [Top 1% of Volume/Year in terms of Number of Scopus Citations as of October 12, 2023]
- 30) **Abedon, S. T.**^{*}, Danis-Wlodarczyk, K. M.[†], Wozniak, D. J., Sullivan, M. B. (2021). Improving Phage-Biofilm In Vitro Experimentation. *Viruses* 13(6):1175. pubmed.ncbi.nlm.nih.gov/34205417/ [opinion]
- 31) Hyman, P.^{*}, Trubl, G.^{*}, **Abedon, S. T.** (2021). Virus-Like Particle: Evolving Meanings in Different Disciplines. *PHAGE: Therapy, Applications, and Research*. 2(1):11-15. pubmed.ncbi.nlm.nih.gov/36148434/ [historical]
- 32) Trubl, G.^{*}, Hyman, P., Roux, S., **Abedon, S. T.**^{*} (2020). Coming-of-Age Characterization of Soil Viruses: A User's Guide to Virus Isolation, Detection within Metagenomes, and Viromics. *Soil Systems* 4(2):23. mdpi.com/2571-8789/4/2/23 [review]
- 33) **Abedon, S. T.** (2019). Use of Phage Therapy to Treat Long-Standing, Persistent, or Chronic Bacterial Infections. *Advanced Drug Delivery Reviews* 145:18-39. pubmed.ncbi.nlm.nih.gov/31708017/ [review]
- 34) Dąbrowska, K.^{*}, **Abedon, S. T.**^{*} (2019). Pharmacologically Aware Phage Therapy: Pharmacodynamic and Pharmacokinetic Obstacles to Phage Antibacterial Action in Bodies. *Microbiology and Molecular Biology Reviews* 83(4):e00012-19. pubmed.ncbi.nlm.nih.gov/31666296/ [review]
- 35) **Abedon, S. T.** (2019). Look Who's Talking: T-even Phage Lysis Inhibition, the Granddaddy of Virus-Virus Intercellular Communication Research. *Viruses* 11(10):951. pubmed.ncbi.nlm.nih.gov/31623057/ [review]
- 36) **Abedon, S. T.** (2019). Phage-Antibiotic Combination Treatments: Antagonistic Impacts of Antibiotics on the Pharmacodynamics of Phage Therapy? *Antibiotics* 8(4):182. pubmed.ncbi.nlm.nih.gov/31614449/ [review]
- 37) Igler, C., **Abedon, S. T.**^{*} (2019). Commentary: A Host-Produced Quorum-Sensing Autoinducer Controls a Phage Lysis-Lysogeny Decision. *Frontiers in Microbiology* 10:1171. pubmed.ncbi.nlm.nih.gov/31214137/ [synthesis] [comment]
- 38) Howard-Varona, C., Vik, D. R., Solonenko, N. E., Li, Y. -F., Gazitua, M. C., Chittick, L., Samiec, J. K., Jensen, A. E., Anderson, P., Howard-Varona, A., Kinkhabwala, A. A., **Abedon, S. T.**^{*}, Sullivan, M. B.^{*} (2018). Fighting Fire with Fire: Phage Potential for the Treatment of *E. coli* O157 Infection. *Antibiotics* 7(4):101. pubmed.ncbi.nlm.nih.gov/30453470/ [experimental]
- 39) **Abedon, S. T.** (2017). Bacteriophage Clinical Use as Antibacterial "Drugs": Utility, Precedent. *Microbiology Spectrum* 5(4):BAD-0003-2016. pubmed.ncbi.nlm.nih.gov/28840811/ [review]
- 40) **Abedon, S. T.** (2017). Active Bacteriophage Biocontrol and Therapy on Sub-Millimeter Scales Towards Removal of Unwanted Bacteria from Foods and Microbiomes. *AIMS Microbiology* 3(3):649-688. pubmed.ncbi.nlm.nih.gov/31294181/ [theoretical]

[†] Co-first author

- 41) Howard-Varona, C., Hargreaves, K. R.[‡], **Abedon, S. T.**, Sullivan, M. B.^{*} (2017). Lysogeny in Nature: Mechanisms, Impact and Ecology of Temperate Phages. *ISME Journal* 11:1511-1520. pubmed.ncbi.nlm.nih.gov/28291233/ [review]
- 42) **Abedon, S. T.**, García, P., Mullany, P., Aminov, R.^{*} (2017). Editorial: Phage Therapy: Past, Present and Future. *Frontiers in Microbiology* 8:981. pubmed.ncbi.nlm.nih.gov/28663740/ [review]
- 43) **Abedon, S. T.** (2017). Commentary: Communication Between Viruses Guides Lysis–Lysogeny Decisions. *Frontiers in Microbiology* 8:983. pubmed.ncbi.nlm.nih.gov/28620362/ [synthesis] [comment]
- 44) **Abedon, S. T.** (2017). Information Phage Therapy Research Should Report. *Pharmaceuticals* 10(2):43. pubmed.ncbi.nlm.nih.gov/28468287/ [opinion]
- 45) **Abedon, S. T.** (2017). Phage “Delay” Towards Enhancing Bacterial Escape from Biofilms: A More Comprehensive Way of Viewing Resistance to Bacteriophages. *AIMS Microbiology* 3(2):186-226. pubmed.ncbi.nlm.nih.gov/31294157/ [synthesis]
- 46) **Abedon, S. T.** (2016). Phage Therapy Dosing: The Problem(s) with Multiplicity of Infection (MOI). *Bacteriophage* 6(3):e1220348. pubmed.ncbi.nlm.nih.gov/27738558/ [historical]
- 47) **Abedon, S. T.** (2016). Commentary: Phage Therapy of Staphylococcal Chronic Osteomyelitis in Experimental Animal Model. *Frontiers in Microbiology*. 7:1251. pubmed.ncbi.nlm.nih.gov/27558214/ [opinion] [comment]
- 48) Hobbs, Z., **Abedon, S. T.**^{*} (2016). Diversity of Phage Infection Types and Associated Terminology: The Problem with ‘Lytic or Lysogenic’. *FEMS Microbiology Letters*. 363(7):fnw027. pubmed.ncbi.nlm.nih.gov/26925588/ [historical]
- 49) **Abedon, S. T.** (2016). Bacteriophage Exploitation of Bacterial Biofilms: Phage Preference for Less Mature Targets? *FEMS Microbiology Letters*. 363(3):fnv246. pubmed.ncbi.nlm.nih.gov/26738755/ [synthesis]
- 50) **Abedon, S. T.** (2015). Ecology of Anti-Biofilm Agents I. Antibiotics versus Bacteriophages. *Pharmaceuticals* 8(3):525-558. pubmed.ncbi.nlm.nih.gov/26371010/ [synthesis]
- 51) **Abedon, S. T.** (2015). Ecology of Anti-Biofilm Agents II. Bacteriophage Exploitation and Biocontrol of Biofilm Bacteria. *Pharmaceuticals* 8(3):559-589. pubmed.ncbi.nlm.nih.gov/26371011/ [review]
- 52) **Abedon, S. T.** (2015). Phage Therapy of Pulmonary Infections. *Bacteriophage* 5:e1020260. pubmed.ncbi.nlm.nih.gov/26442188/ [review]
- 53) **Abedon, S. T.** (2015). Bacteriophage Secondary Infection. *Virologica Sinica* 30(1):3-10. pubmed.ncbi.nlm.nih.gov/25595214/ [review]
- 54) Chan, B. K., **Abedon, S. T.**^{*} (2015). Bacteriophages and their Enzymes in Biofilm Control. *Current Pharmaceutical Design* 21(1):85-99. pubmed.ncbi.nlm.nih.gov/25189866/ [review]
- 55) **Abedon, S. T.** (2014). Phage Therapy: Eco-Physiological Pharmacology. *Scientifica* 14:581639. pubmed.ncbi.nlm.nih.gov/25031881/ [synthesis]
- 56) Allen, H. K.^{*}, **Abedon, S. T.**^{*} (2014). Virus Ecology and Disturbances: Impact of Environmental Disruption on the Viruses of Microorganisms. *Frontiers in Microbiology* 5:700. pubmed.ncbi.nlm.nih.gov/25566216/ [review]

- 57) Allen, H. K. *, **Abedon, S. T.** * (2013). That's Disturbing! An Exploration of the Bacteriophage Biology of Change. *Frontiers in Microbiology* 4:295. pubmed.ncbi.nlm.nih.gov/24294211/ [review]
- 58) ‡Chan, B. K., **Abedon, S. T.**, Loc-Carrillo, C. * (2013). Phage Cocktails and the Future of Phage Therapy. *Future Microbiology* 8:769-783. pubmed.ncbi.nlm.nih.gov/23701332/ [review]
- 59) **Abedon, S. T.** *, Murray, K. L. (2013). Archaeal Viruses, not Archaeal Phages: An Archaeological Dig. *Archaea* 2013:251245. pubmed.ncbi.nlm.nih.gov/23653528/ [review]
- 60) **Abedon, S. T.** (2012). Thinking About Microcolonies as Phage Targets. *Bacteriophage* 2:200-204. pubmed.ncbi.nlm.nih.gov/23275871/ [review]
- 61) Hyman, P., **Abedon, S. T.** * (2012). Smaller Fleas: Viruses of Microorganisms. *Scientifica* 2012:734023. pubmed.ncbi.nlm.nih.gov/24278736/ [review]
- 62) Hyman, P. *, **Abedon, S. T.** (2012). High-Affinity and -Specificity, Bacteriophage-Based Technologies: Beyond Phage therapy. *CAB Reviews* 7:1-3. cabdigitallibrary.org/doi/10.1079/PAVSNNR20127044 [review]
- 63) **Abedon, S. T.** (2012). Spatial Vulnerability: Bacterial Arrangements, Microcolonies, and Biofilms as Responses to Low rather than High Phage Densities. *Viruses* 4(5):663-687. pubmed.ncbi.nlm.nih.gov/22754643/ [synthesis]
- 64) **Abedon, S. T.** (2012). Bacterial 'Immunity' against Bacteriophages. *Bacteriophage* 2(1):50-54. pubmed.ncbi.nlm.nih.gov/22666656/ [synthesis]
- 65) Curtright, A. J., **Abedon, S. T.** * (2011). Phage Therapy: Emergent Property Pharmacology. *Journal of Bioanalysis & Biomedicine*. S6:002. hilarispublisher.com/abstract/phage-therapy-emergent-property-pharmacology-26883.html [synthesis]
- 66) **Abedon, S. T.**, Kuhl, S., Blasdel, B. G., Kutter, E. M. * (2011). Phage Treatment of Human Infections. *Bacteriophage* 1(2): 66-85. § pubmed.ncbi.nlm.nih.gov/22334863/ [historical]
- 67) **Abedon, S. T.** (2011). Size Does Matter – Distinguishing Bacteriophages by Genome Length (and 'Breadth'). *Microbiology Australia* 32(2):90-91. microbiology.publish.csiro.au/?act=view_file&file_id=MA11095.pdf [synthesis]
- 68) Loc-Carrillo, C., **Abedon, S. T.** * (2011). Pros and Cons of Phage Therapy. *Bacteriophage* 1(2):111-114. ** pubmed.ncbi.nlm.nih.gov/22334867/ [opinion]
- 69) **Abedon, S. T.** (2011). Lysis from Without. *Bacteriophage* 1(1):46-49. (commentary) pubmed.ncbi.nlm.nih.gov/21687534/ [review] [historical]
- 70) **Abedon, S. T.** (2009). Kinetics of Phage-Mediated Biocontrol of Bacteria. *Foodborne Pathogens and Disease* 6(7):807-815. pubmed.ncbi.nlm.nih.gov/19459758/ [theoretical]
- 71) Goodridge, L., **Abedon, S. T.** * (2008). Bacteriophage Biocontrol: The Technology Matures. *Microbiology Australia* 29(March):48-49. microbiology.publish.csiro.au/?paper=MA08048 [opinion]
- 72) **Abedon, S. T.** *, Culler, R.R. (2007). Bacteriophage Evolution Given Spatial Constraint. *Journal of Theoretical Biology* 248:111-119. pubmed.ncbi.nlm.nih.gov/17561124/ [theoretical]

‡ Chan et al. was featured here www.mdlinx.com/infectious-disease/news-article.cfm/4655716

§ Abedon et al. (2011) is the most cited and most downloaded article in the journal it is published in, *Bacteriophage*.

** Loc-Carrillo and Abedon (2011) is the 3rd most cited article for the journal, *Bacteriophage*

- 73) Dennehy, J., **Abedon, S. T.**, Turner, P. E.* (2007). Host Density Impacts Relative Fitness of Bacteriophage $\phi 6$ Genotypes in Structured Habitats. *Evolution* 61:2516-2527. pubmed.ncbi.nlm.nih.gov/17725627/ [experimental]
- 74) **Abedon, S. T.***, Culler, R. R. (2007). Optimizing Bacteriophage Plaque Fecundity. *Journal of Theoretical Biology* 249:582-592. (theoretical study; Ms. Culler worked under my supervision) pubmed.ncbi.nlm.nih.gov/17919662/ [theoretical]
- 75) **Abedon, S. T.*** and LeJeune, J. T. (2005). Why Bacteriophage Encode Toxins and other Virulence Factors. *Evolutionary Bioinformatics* 1:97-110. pubmed.ncbi.nlm.nih.gov/19325857/ [synthesis]
- 76) LeJeune, J. T.*, **Abedon, S. T.**, Takemura, K., Christie, N. P., Sreevatsan, S. (2004). Human *Escherichia coli* O157:H7 Genetic Marker in Isolates of Bovine Origin. *Emerging Infectious Diseases* 10(8):1482-1485. pubmed.ncbi.nlm.nih.gov/15496255/ [experimental]
- 77) **Abedon, S. T.***, Hyman, P., Thomas, C. (2003). Experimental Examination of Latent-Period Evolution as a Response to Bacterial Availability. *Applied and Environmental Microbiology* 69(12):7499-7506.†† pubmed.ncbi.nlm.nih.gov/14660403/ [experimental]
- 78) **Abedon, S. T.***, Herschler, T. D., Stopar, D. (2001). Bacteriophage Latent-Period Evolution as a Response to Resource Availability. *Applied and Environmental Microbiology* 67(9):4233-4241.†† pubmed.ncbi.nlm.nih.gov/11526028/ [theoretical] [experimental]
- 79) **Abedon, S. T.** (1999). Bacteriophage T4 Resistance to Lysis-Inhibition Collapse. *Genetical Research*. 74:1-11. pubmed.ncbi.nlm.nih.gov/10505404/ [experimental]
- 80) Paddison, P., **Abedon, S. T.**, Dressman, H., Gailbreath, K., Mosser, E., Neitzel, J., Guttman, B., Kutter, E.* (1998). The Roles of the Bacteriophage T4 *r* Genes in Lysis Inhibition and Fine-Structure Genetics: A New Perspective. *Genetics* 148:1539-1550. pubmed.ncbi.nlm.nih.gov/9560373/ [experimental]
- 81) Broder, C.C., Earl, P. L., Long, D., **Abedon, S. T.**, Moss, B.* , Doms, R. W. (1994). Antigenic implications of human immunodeficiency virus type 1 envelope quaternary structure: oligomer-specific and -sensitive monoclonal antibodies. *Proceedings of the National Academy of Science USA* 91:11699-11703. pubmed.ncbi.nlm.nih.gov/7972127/ [experimental]
- 82) **Abedon, S. T.** (1992). Lysis of Lysis-Inhibited Bacteriophage T4 Infected Cells. *Journal of Bacteriology* 174:8073-8080. pubmed.ncbi.nlm.nih.gov/1459956/ [experimental]
- 83) **Abedon, S. T.** (1990). Selection for Lysis Inhibition in Bacteriophage. *Journal of Theoretical Biology* 146(4):501-511. pubmed.ncbi.nlm.nih.gov/2273898/ [theoretical]
- 84) **Abedon, S. T.** (1989). Selection for Bacteriophage Latent Period Length by Bacterial Density: A Theoretical Examination. *Microbial Ecology* 18(2):79-88. pubmed.ncbi.nlm.nih.gov/24196124/ [theoretical]



†† Recommended, Faculty of 1000 Biology, www.f1000biology.com/article/id/1007193/evaluation

‡‡ Featured in Nov., 2001 (Vol. 67) Journal Highlights section of ASM News

PUBLICATIONS—Editor-Reviewed Articles

- 85) **Abedon, S. T.** (2025). Breadth of Depth of Bacteriophage Antibacterial Activity. *Advance Research in Science* 3(2):1032. corpuspublishers.com/article-info/breadth-of-depth-of-bacteriophage-antibacterial-activity-1009 [educational]
- 86) Danis-Wlodarczyk, K., Dąbrowska, K., **Abedon, S. T.*** (2021). Phage Therapy: The Pharmacology of Antibacterial Viruses. *Current Issues in Molecular Biology* 40:81-164. pubmed.ncbi.nlm.nih.gov/32503951/ [review]
- 87) **Abedon, S. T.** (2019). Phage Therapy: A One-Hundred-Year-Old Alternative to Modern, Chemical Antibiotics. *Atlas of Science* March 14, 2019. atlasofscience.org/phage-therapy-a-one-hundred-year-old-alternative-to-modern-chemical-antibiotics/ [educational]
- 88) **Abedon, S. T.***, Katsaounis, T. I. (2018). Basic Phage Mathematics. *Methods in Molecular Biology* 1681:3-30. pubmed.ncbi.nlm.nih.gov/29134583/ [educational]
- 89) **Abedon, S. T.** (2018). Phage Therapy: Various Perspectives on How to Improve the Art. *Methods in Molecular Biology* 1734:113-127. pubmed.ncbi.nlm.nih.gov/29288451/ [opinion]
- 90) Alves, D. R., **Abedon, S. T.*** (2017). An Online Phage Therapy Bibliography: Separating Under-Indexed Wheat from Overly Indexed Chaff. *AIMS Microbiology* 3(3):525-528. pubmed.ncbi.nlm.nih.gov/31294174/ [historical]
- 91) Kutter, E. M.*, Kuhl, S., **Abedon, S. T.*** (2015). Re-Establishing a Place for Phage Therapy in Western Medicine. *Future Microbiology*. 10(5):685-688. pubmed.ncbi.nlm.nih.gov/26000644/ [opinion]
- 92) **Abedon, S. T.** (2013). Are Archaeons Incapable of Being Parasites or Have We Simply Failed to Notice? *BioEssays* 35:501. pubmed.ncbi.nlm.nih.gov/23575903/ [synthesis]
- 93) Chan, B. K., **Abedon, S. T.*** (2012). Phage Therapy Pharmacology: Phage Cocktails. *Advances in Applied Microbiology* 78:1-23. pubmed.ncbi.nlm.nih.gov/22305091/ [synthesis]
- 94) **Abedon, S.** (2011). Phage Therapy Pharmacology: Calculating Phage Dosing. *Advances in Applied Microbiology*. 77:1-40. pubmed.ncbi.nlm.nih.gov/22050820/ [theoretical] [review]
- 95) **Abedon, S. T.** (2011). Envisaging Bacteria as Phage Targets. *Bacteriophage* 1(4): 228-230. pubmed.ncbi.nlm.nih.gov/23616932/ [theoretical]
- 96) **Abedon, S. T.** (2011). Facilitation of CRISPR Adaptation. *Bacteriophage* 1(3):179-181. pubmed.ncbi.nlm.nih.gov/22164352/ [synthesis]
- 97) **Abedon, S. T.***, Thomas-Abedon, C., Thomas, A., Mazure, H. (2011). Bacteriophage Prehistory: Is or is not Hankin, 1896, a Phage Reference? *Bacteriophage* 1(3): 174-178. pubmed.ncbi.nlm.nih.gov/22164351/ [historical]
- 98) **Abedon, S. T.** (2011). Communication among Phages, Bacteria, and Soil Environments. *Soil Biology* 23:37-65. (a.k.a., *Biocommunication of Soil Microorganisms*, G. Witzany, ed, Springer-Verlag, Heidelberg) link.springer.com/chapter/10.1007/978-3-642-14512-4_2 [review]
- 99) Hyman, P.*, **Abedon, S. T.** (2010). Bacteriophage Host Range and Bacterial Resistance. *Advances in Applied Microbiology* 70:217-248. pubmed.ncbi.nlm.nih.gov/20359459/ [synthesis] [review]
- 100) **Abedon, S. T.***, Yin, J. (2009). Bacteriophage Plaques: Theory and Analysis. *Methods in Molecular Biology* 501:161-174. [also: In: *Bacteriophages: Methods and Protocols*, Clokie M., Kropinski, A. (eds), Humana Press, USA] pubmed.ncbi.nlm.nih.gov/19066821/ [review]

- 101) Hyman, P., **Abedon, S. T.*** (2009). Practical Methods for Determining Phage Growth Parameters. *Methods in Molecular Biology* 501:175-202. [also: In: *Bacteriophages: Methods and Protocols*, Clokie M., Kropinski, A. (eds), Humana Press, USA] pubmed.ncbi.nlm.nih.gov/19066822/ [educational]
- 102) **Abedon, S. T.** (2009). Phage Evolution and Ecology. *Advances in Applied Microbiology* 67:1-45. pubmed.ncbi.nlm.nih.gov/19245935/ [synthesis] [review]
- 103) Gill, J., **Abedon, S. T.*** (2003). Bacteriophage Ecology and Plants. *APSnet Feature*, November 2003. apsnet.org/edcenter/apsnetfeatures/Pages/BacteriophageEcology.aspx [review]
- 104) Goodridge, L., **Abedon, S. T.*** (2003). Bacteriophage Biocontrol and Bioprocessing: Application of Phage Therapy to Industry. *SIM News (Society for Industrial Microbiology News)* 53(6):254-262. researchgate.net/publication/242411977_Bacteriophage_biocontrol_and_bioprocessing_Application_of_phage_therapy_to_industry [review]
- 105) **Abedon, S. T.** (2000). The Murky Origin of Snow White and Her T-even Dwarfs. *Genetics* 155:481-486. pubmed.ncbi.nlm.nih.gov/10835374/ [historical]

PUBLICATIONS—Journal Articles, but not peer or editor reviewed

- 106) **Abedon, S. T.** (2010). The ‘Nuts and Bolts’ of Phage Therapy. *Current Pharmaceutical Biotechnology* 11(1):1. (editorial for special topic issue) pubmed.ncbi.nlm.nih.gov/20214603/
- 107) **Abedon, S. T.***, Thomas-Abedon, C. (2010). Phage Therapy Pharmacology. *Current Pharmaceutical Biotechnology* 11(1):28-47. pubmed.ncbi.nlm.nih.gov/20214606/ [theoretical] [synthesis] [review]
- 108) Kutter, E.* , De Vos, D., Gvasalia, G., Alavidze, Z., Gogokhia, L., Kuhl, S., **Abedon, S. T.** (2010). Phage Therapy in Clinical Practice: Treatment of Human Infections. *Current Pharmaceutical Biotechnology* 11(1):69-86. pubmed.ncbi.nlm.nih.gov/20214609/ [review]



PUBLICATIONS—Book Chapters

- 109) Danis-Wlodarczyk, K. M.[†], Alves, D. R.[†], **Abedon, S. T.*** (2024). Phage Therapy: A Clinician’s Guide. In: *Handbook of Molecular Biotechnology*. Liu, D. (ed), Taylor and Francis CRC Press, Boca Raton, FL. pp. 524-542. doi.org/10.1201/9781003055211-54 [review]
- 110) **Abedon, S. T.** (2023). Evolution of Bacteriophage Latent Period Length. In: *Evolutionary Biology: Contemporary and Historical Reflections Upon Core Theory*. Dickins, T. E., Dickens, B. J. A. (eds), Springer, Cham, Switzerland. pp. 375-426. link.springer.com/chapter/10.1007/978-3-031-22028-9_23 [review]
- 111) **Abedon, S. T.** (2023). On *r*-K Selection in the Evolution of Bacteriophages: A Reply to Dickins. In: *Evolutionary Biology: Contemporary and Historical Reflections Upon Core Theory*. Dickins, T. E., Dickens, B. J. A. (eds), Springer, Cham, Switzerland. pp. 433-438. link.springer.com/chapter/10.1007/978-3-031-22028-9_25 [opinion]
- 112) Dennehy, J. J., **Abedon, S. T.*** (2021). Adsorption: Phage Acquisition of Bacteria. In: *Bacteriophages: Biology, Technology, Therapy*. Harper, D., Abedon, S. T., Burrows, B.

- H., McConville, M. (eds), Springer, Cham, Switzerland. pp. 93-117.
link.springer.com/referenceworkentry/10.1007%2F978-3-319-40598-8_2-1 [review]
- 113) Dennehy, J. J. *, **Abedon, S. T.** (2021). Bacteriophage Ecology. In: *Bacteriophages: Biology, Technology, Therapy*. Harper, D., Abedon, S. T., Burrows, B. H., McConville, M. (eds), Springer, Cham, Switzerland. pp. 253-294.
link.springer.com/referenceworkentry/10.1007%2F978-3-319-40598-8_8-1 [review]
- 114) Dąbrowska, K., Górski, A., **Abedon, S. T.** * (2021). Bacteriophage Pharmacology and Immunology. In: *Bacteriophages: Biology, Technology, Therapy*. Harper, D., Abedon, S. T., Burrows, B.H., McConville, M. (eds), Springer, Cham, Switzerland. pp. 295-339.
link.springer.com/referenceworkentry/10.1007/978-3-319-40598-8_9-1 [review]
- 115) Dennehy, J. J., **Abedon, S. T.** * (2021). Phage Infection and Lysis. In: *Bacteriophages: Biology, Technology, Therapy*. Harper, D., Abedon, S. T., Burrows, B. H., McConville, M. (eds), Springer, Cham, Switzerland. pp. 341-383.
link.springer.com/referenceworkentry/10.1007/978-3-319-40598-8_53-1 [review]
- 116) **Abedon, S. T.** (2021). Detection of Bacteriophages: Phage Plaques. In: *Bacteriophages: Biology, Technology, Therapy*. Harper, D., Abedon, S. T., Burrows, B.H., McConville, M. (eds), Springer, Cham, Switzerland. pp. 507-538.
link.springer.com/referenceworkentry/10.1007/978-3-319-40598-8_16-1 [review]
- 117) **Abedon, S. T.** *, Katsaounis, T. I. (2021). Detection of Bacteriophages: Phage Enumeration via Plaque Counts. In: *Bacteriophages: Biology, Technology, Therapy*. Harper, D., Abedon, S. T., Burrows, B.H., McConville, M. (eds), Springer, Cham, Switzerland. pp. 539-560. link.springer.com/referenceworkentry/10.1007/978-3-319-40598-8_17-1 [educational]
- 118) **Abedon, S. T.** (2020). Phage-Phage, Phage-Bacteria, and Phage-Environment Communication. In: *Biocommunication of Phages*. Witzany, G. (ed), Springer, Cham, Switzerland. pp. 23-70. doi.org/10.1007/978-3-030-45885-0_2 [review]
- 119) **Abedon, S. T.** (2020). Bacteriophage-Mediated Biocontrol of Wound Infections, and Ecological Exploitation of Biofilms by Phages. In: *Recent Clinical Techniques, Results, and Research in Wounds*. Shiffman, M., Low, M. (eds), Springer, Cham, Switzerland. pp. 121-158. link.springer.com/chapter/10.1007/15695_2018_110 [review]
- 120) Hyman, P. and **Abedon, S. T.** * (2018). Viruses of Microorganisms: What are They and Why Should We Care? In: *Viruses of Microorganisms*. Hyman, P., Abedon, S. T. (eds), Caister Academic Press, Norwich, UK. pp. 3-14. caister.com/vom [review]
- 121) **Abedon, S. T.** (2018). Viruses of Domain Archaea. In: *Viruses of Microorganisms*. Hyman, P., Abedon, S. T. (eds), Caister Academic Press, Norwich, UK. pp. 167-192.
caister.com/vom [review]
- 122) Alves, D. R., Clark, J., **Abedon, S. T.** * (2018). Viruses as Biocontrol Agents of Microorganisms. In: *Viruses of Microorganisms*. Hyman, P., Abedon, S. T. (eds), Caister Academic Press, Norwich, UK. pp. 313-330. caister.com/hsp/abstracts/vom/14.html [review]
- 123) **Abedon, S. T.** (2018). Bacteriophage Clinical Use as Antibacterial “Drugs”: Utility, Precedent. In: *Bugs as Drugs*. Cani, P., Britton, R. A. (eds), ASM Press, Washington DC, pp. 419-451. (note that this chapter is equivalent to the 2017 *Microbiology Spectrum* article of the same name) [review]

- 124) **Abedon, S. T.** (2017). Why Archaea are Limited in their Exploitation of Other, Living Organisms. In: *Biocommunication of Archaea*. Witzany, G. (ed), Springer, pp. 41-66. link.springer.com/chapter/10.1007/978-3-319-65536-9_4 [synthesis]
- 125) **Abedon, S. T.** (2014). Bacteriophages as Drugs: The Pharmacology of Phage Therapy. In: *Phage Therapy: Current Research and Applications*. Borysowski, J., Międzybrodzki, R., Górski, A. (eds), Caister Academic Press, Norfolk, UK, pp. 69-100. caister.com/hsp/abstracts/phagetherapy/03.html [synthesis] [review]
- 126) **Abedon, S. T.** (2012). Salutary Contributions of Viruses to Medicine and Public Health. In: *Viruses: Essential Agents of Life*. Witzany, G. (ed), Springer-Verlag, Heidelberg, pp. 389-405. link.springer.com/chapter/10.1007/978-94-007-4899-6_19 [review]
- 127) **Abedon, S. T.** (2012). Phages. In: *Bacteriophages in Health and Disease*. Hyman, P., Abedon, S. T. (eds), CABI Press, Wallingford, Oxfordshire, UK, pp. 1-5. books.google.com/books?id=zpcfuP6jTd4C [review]
- 128) Kuhl, S. *, **Abedon, S. T.**, Hyman, P. (2012). Diseases Caused by Phages. In: *Bacteriophages in Health and Disease*. Hyman, P., Abedon, S. T. (eds), CABI Press, Wallingford, Oxfordshire, UK, pp. 21-32. (helped to finish the chapter; 25% effort at best) books.google.com/books?id=zpcfuP6jTd4C [review]
- 129) Clark, J., **Abedon, S. T.**, Hyman, P. * (2012). Phages as Therapeutic Delivery Vehicles. In: *Bacteriophages in Health and Disease*. Hyman, P., Abedon, S. T. (eds), CABI Press, Wallingford, Oxfordshire, UK, pp. 86-100. books.google.com/books?id=zpcfuP6jTd4C [review]
- 130) **Abedon, S. T.** (2012). Phage Therapy Best Practices. In: *Bacteriophages in Health and Disease*. Hyman, P., Abedon, S. T. (eds), CABI Press, Wallingford, Oxfordshire, UK, pp. 256-272. books.google.com/books?id=zpcfuP6jTd4C [opinion]
- 131) Chan, B. K., **Abedon, S. T.** * (2012). Bacteriophage Adaptation, with Particular Attention to Issues of Phage Host Range. In: *Bacteriophages in Dairy Processing*. Quiberoni, A., Reinheimer, J. (eds), Nova Science Publishers, Hauppauge, New York, pp. 25-52. novapublishers.com/catalog/product_info.php?products_id=24227 [synthesis]
- 132) **Abedon, S. T.** (2010). Bacteriophages and Biofilms. In: *Biofilms: Formation, Development and Properties*. Bailey, W. C. (ed), Nova Science Publishers, Hauppauge, New York, 1-58. novapublishers.com/catalog/product_info.php?products_id=21940 [synthesis] [review]
- 133) **Abedon, S. T.** (2009). Bacteriophage Intraspecific Cooperation and Defection. In: *Contemporary Trends in Bacteriophage Research*. Adams, H. T. (ed), Nova Science Publishers, Hauppauge, New York, pp. 191-215. <https://www.academia.edu/33489585> [synthesis]
- 134) **Abedon, S. T.** (2009). Impact of Phage Properties on Bacterial Survival. In: *Contemporary Trends in Bacteriophage Research*. Adams, H. T. (ed), Nova Science Publishers, Hauppauge, New York, pp. 217-235. academia.edu/33489586 [synthesis]
- 135) **Abedon, S. T.** (2009). Deconstructing Chemostats Towards Greater Phage-Modeling Precision. In: *Contemporary Trends in Bacteriophage Research*. Adams, H. T. (ed), Nova Science Publishers, Hauppauge, New York, pp. 249-283. academia.edu/33489588 [theoretical]
- 136) **Abedon, S. T.** (2009). Disambiguating Bacteriophage Pseudolysogeny: An Historical Analysis of Lysogeny, Pseudolysogeny, and the Phage Carrier State. In: *Contemporary Trends in Bacteriophage Research*. Adams, H. T. (ed), Nova Science Publishers, Hauppauge, New York, 285-307. academia.edu/33489587 [review]

- 137) **Abedon, S. T.** (2008). Phages, Ecology, Evolution. In: *Bacteriophage Ecology*, Abedon, S. T. (ed), Cambridge University Press, Cambridge, pp. 1-28.
doi.org/10.1017/CBO9780511541483.004 [review]
- 138) **Abedon, S. T.** (2008). Phage Population Growth: Constraints, Games, Adaptations. In: *Bacteriophage Ecology*, Abedon, S. T. (ed), Cambridge University Press, Cambridge, pp. 64-93. doi.org/10.1017/CBO9780511541483.006 [synthesis] [review]
- 139) **Abedon, S. T.***, Yin, J. (2008). Impact of Spatial Structure on Phage Population Growth. In: *Bacteriophage Ecology*, Abedon, S. T. (ed), Cambridge University Press, Cambridge, pp. 94-113. doi.org/10.1017/CBO9780511541483.007 [review]
- 140) Hyman, P.*, **Abedon, S. T.** (2008). Phage Ecology of Bacterial Pathogenesis. In: *Bacteriophage Ecology*, Abedon, S. T. (ed), Cambridge University Press, Cambridge, pp. 353-385. doi.org/10.1017/CBO9780511541483.017 [review]
- 141) Stopar, D., **Abedon, S. T.*** (2008). Modeling Phage Population Growth. In: *Bacteriophage Ecology*, Abedon, S. T. (ed), Cambridge University Press, Cambridge, pp. 389-414. [review]
- 142) Krone, S. M.*, **Abedon, S. T.** (2008). Modeling Phage Plaque Growth. In: *Bacteriophage Ecology*, Abedon, S. T. (ed), Cambridge University Press, Cambridge, pp. 415-438.
doi.org/10.1017/CBO9780511541483.019 [review]
- 143) **Abedon, S. T.** (2006). Phage Ecology. In: *The Bacteriophages*. Second Edition. Calendar, R., Abedon, S. T. (eds), Oxford University Press, Oxford, pp. 37-46.
books.google.com/books?id=nozn1K8tcRsC [review]
- 144) Brietbart, M., Rohwer, F., **Abedon, S. T.*** (2005). Phage Ecology and Bacterial Pathogenesis. In: *Phages: Their Role in Bacterial Pathogenesis and Biotechnology*. Waldor, M., Friedman, D., Ahdya, S. (eds), ASM Press, Washington, DC, pp. 66-91.
google.com/books?id=rneYX9h99VwC [review]
- 145) **Abedon, S. T.** (1994). Lysis and the Interaction Between Free Phages and Infected Cells. In: *The Molecular Biology of Bacteriophage T4*. Karam, J. D., Drake, J. W., Kreuzer, K. N., Mosig, G., Hall, D., Eiserling, F. A., Black, L. W., Kutter, E., Carlson, K., Miller, E. S., Spicer, E. (eds), ASM Press, Washington, DC, pp. 397-405. [review]

PUBLICATIONS—Encyclopedia Articles

- 146) **Abedon, S. T.** (2021). General Ecology of Bacteriophages. In: *Encyclopedia of Virology*, 4th edition. Bamford, D. H., Zuckerman, M. (eds) Elsevier, Oxford.
linkinghub.elsevier.com/retrieve/pii/B9780128096338209552 [review]
- 147) Hyman, P., **Abedon, S. T.*** (2019). Bacteriophage: Overview. *Encyclopedia of Microbiology*. Tom Schmidt (ed), Elsevier, Oxford. elsevier.com/books/encyclopedia-of-microbiology/schmidt/978-0-12-811736-1 [review]
- 148) Burmeister, A., **Abedon, S. T.**, Turner, P. E.* (2019). Bacteriophage Ecology. *Encyclopedia of Microbiology*. Tom Schmidt (ed), Elsevier, Oxford.
elsevier.com/books/encyclopedia-of-microbiology/schmidt/978-0-12-811736-1 [review]
- 149) Blasdel, B. G., **Abedon, S. T.*** (2017). Superinfection immunity. *Reference Module in Life Sciences*. Elsevier, dx.doi.org/10.1016/B978-0-12-809633-8.07217-4 [review]
- 150) **Abedon, S. T.** (2017). Multiplicity of Infection. *Reference Module in Life Sciences*. Elsevier, dx.doi.org/10.1016/B978-0-12-809633-8.06748-0. [review]

- 151) **Abedon, S. T.** (2017). Plaques. *Reference Module in Life Sciences*. Elsevier, [dx.doi.org/10.1016/B978-0-12-809633-8.06915-6](https://doi.org/10.1016/B978-0-12-809633-8.06915-6). [review]
- 152) Hyman, P., **Abedon, S. T.*** (2015). Bacteriophage: Overview. *Reference Module in Biomedical Sciences*. Caplan, M. J. (ed). Elsevier, Oxford. (this is a somewhat updated version of the article of same title as had been published in 2009 in the *Encyclopedia of Microbiology*. [sciencedirect.com/science/article/pii/B978012801238302506X](https://www.sciencedirect.com/science/article/pii/B978012801238302506X) [review]
- 153) **Abedon, S. T.**, Bartom, E.* (2013). Multiplicity of Infection. *Brenner's Encyclopedia of Genetics*. Maloy, S., Hughes, K. (eds). Academic Press, pp. 509-510. [review]
- 154) **Abedon, S. T.**, Bartom, E.* (2013). Plaques. *Brenner's Encyclopedia of Genetics*. Maloy, S., Hughes, K. (eds). Academic Press, pp. 357-357. [review]
- 155) Blasdel, B. G., **Abedon, S. T.*** (2013). Superinfection immunity. *Brenner's Encyclopedia of Genetics*. Maloy, S., Hughes, K. (eds). Academic Press, pp. 384-386. [review]
- 156) Hyman, P., **Abedon, S. T.*** (2009). Bacteriophage (Overview). *Encyclopedia of Microbiology*. Schaechter, M. (ed). Elsevier, Oxford, pp. 322-338. [google.com/books/edition/Encyclopedia_of_Microbiology/OHkINQEACAAJ](https://books.google.com/books/edition/Encyclopedia_of_Microbiology/OHkINQEACAAJ) [review]
- 157) **Abedon, S. T.**, Duffy, S., Turner, P. E.* (2009). Bacteriophage Ecology. *Encyclopedia of Microbiology*. Schaechter, M. (ed), Elsevier, Oxford, pp. 42-57. [google.com/books/edition/Encyclopedia_of_Microbiology/OHkINQEACAAJ](https://books.google.com/books/edition/Encyclopedia_of_Microbiology/OHkINQEACAAJ) [review]
- 158) **Abedon, S. T.** (2008). Ecology of Viruses Infecting Bacteria. In: *Encyclopedia of Virology*, Mahy, B., van Regenmortel, M. (eds). Elsevier, Oxford, pp. 71-77. [google.com/books/edition/Encyclopedia_of_Virology/z4LWhJrX03oC](https://books.google.com/books/edition/Encyclopedia_of_Virology/z4LWhJrX03oC) [review]
- 159) **Abedon, S. T.***, Breitenberger, C. A., Williams, J. B., Roden, E. E. (2008). Ecological Processes: Respiration. *Encyclopedia of Ecology*. Jørgensen, S. E., Fath, B. D. (eds). Elsevier, Oxford, pp. 3010-3020. [elsevierdirect.com/brochures/ecology/index.html](https://www.elsevierdirect.com/brochures/ecology/index.html) [review]

PUBLICATIONS—Conference Proceedings

- 160) Doms, R. W.* , **Abedon, S. T.**, Richardson, T. M. (1995). Viral Membrane Proteins as Tools to Study Protein Folding, Assembly, and Transport. *Trafficking of Intracellular Membranes: Molecular Sorting to Membrane Fusion*. M.C. Pedroso de Lima, N. Düzgüneş, D. Hoestra (eds). NATO-ASI Series, Subseries H, Springer Verlag Vol. 91, p. 171-186.

PUBLICATIONS—Book Reviews

- 161) **Abedon, S.** (2020). Bringing Phage Therapy Soon to a Clinic Near You. *Lancet Infectious Diseases* 20(5):551. This is a review of *Phage Therapy: A Practical Approach*, Springer, 2019. [thelancet.com/journals/laninf/article/PIIS1473-3099\(20\)30307-8/fulltext](https://www.thelancet.com/journals/laninf/article/PIIS1473-3099(20)30307-8/fulltext) [review]

PUBLICATIONS—Portions of Book Chapters

- 162) **Abedon, S. T.** (2008). Rate of adsorption is function of phage density (appendix to chapter by L. D. Goodridge: Phages, Bacteria, and Food). In: *Bacteriophage Ecology*, Abedon, S. T. (ed), Cambridge University Press, Cambridge. pp. 321-324 (of 302-331). doi.org/10.1017/CBO9780511541483.015

- 163) **Abedon, S. T.** (1997). Addendum (re: “The Cult of the Golden Ratio”). In: *Weird Water & Fuzzy Logic: More Notes of a Fringe Watcher*. Gardner, M. (author), Prometheus Books, pp. 96-97. (reprinted letter)

PUBLICATION—Preprints (checked 2025-10-17)

- 164) **Abedon, S.T.** (2025). Early Use of Kinetic 96-Well Plate Readers to Study Phage-Induced Bacterial Lysis: Who Was First? *Preprints.org* doi.org/10.20944/preprints202510.1387.v1 **[review]** (132 downloads, 51 views)
- 165) **Abedon, S.T.** (2025). Dos and Don'ts of Bacteriophage One-Step Growth. *Preprints.org* doi.org/10.20944/preprints202507.2624.v1 **[review]** (363 download, 156 views)
- 166) **Abedon, S.T.** (2025). Phage Therapy Annotated Glossary. *Preprints.org* doi.org/10.20944/preprints202508.0347.v1 **[review]** (124 downloads, 71 views)

PUBLICATIONS—Re-Published or Duplicate Publications

- 167) Danis-Wlodarczyk, K., Dąbrowska, K., **Abedon, S. T.** (2020). Phage Therapy: The Pharmacology of Antibacterial Viruses. In: *Exploitation of Bacteriophages for Biocontrol and Therapeutics*. Coffey, A., Buttimer, C. (eds.), Caister Academic Press, Norwich, UK. pp. 49-132. caister.com/bacterialviruses caister.com/openaccess/pdf/9781913652517-02.pdf **[review]**
- 168) **Abedon, S. T.** (2014). Spatial Vulnerability: Bacterial Arrangements, Microcolonies, and Biofilms as Responses to Low rather than High Phage Densities. In: *Recent Progress in Bacteriophage Research*. Hatfull, G. F. (ed), MDPI, Basel, Switzerland. [published as a chapter in the book form of the special issue it was originally published in]. mdpi.com/books/pdfview/book/113 pubmed.ncbi.nlm.nih.gov/22754643/ **[synthesis]**
- 169) Hyman, P. *, **Abedon, S. T.** (2013). High-affinity and -specificity, bacteriophage-based technologies: beyond phage therapy. In: *Animal Science Reviews*. Hemming, D. (ed), CABI Press, Oxfordshire, UK (reprinting of invited mini review loosely based on book submitted to same publisher) **[review]**
- 170) Hyman, P., **Abedon, S. T.** * (2009). Bacteriophage (Overview). *Desk Encyclopedia of Microbiology*. Schaechter, M. (ed). Elsevier, Oxford, pp. 166-182. (this is a republishing of Hyman and Abedon, 2009, *Encyclopedia of Microbiology*) **[review]**

PRESENTATIONS—Invited talks

- | | |
|------|---|
| 2025 | • Inst. Sci. & Technol. Austria (ISTA), Klosterneuburg, AT |
| 2025 | • Valdoltra Orthopaedics Hospital, Koper, Slovenia |
| 2025 | • 26th Bien. Evergreen Int. Phage Meeting, Knoxville, TN, youtu.be/iI2UdWP_zzY |
| 2024 | • Nebraska Center for Virology Symp, U. of NE, Lincoln |
| 2024 | • Virginia Tech, Blacksburg, VA |
| 2023 | • ASM Microbe, Houston |
| 2022 | • ESCMID Online Course on Phage Therapy, online, Australia |
| 2021 | • XXXI Brazilian Congress of Virology, online, Brazil |
| 2019 | • Phagomed, Vienna, Austria |

- 2019 • Inst. Sci. & Technol. (IST) Austria, Klosterneuburg, AT youtu.be/yUiBYcas5PI
- 2018 • The Ohio State University, Columbus, OH
- 2018 • §§^{3rd} Phage Meeting China, Dalian, China
- 2018 • Healthy S. Texas Tropical & Infectious Disease Conf., Corpus Christi, TX
- 2017 • Bacteriophages 2017, Virtual Meeting by EuroSciCon youtu.be/9Mm6oD3AW5s
- 2016 • 2nd Bacteriophage Meeting, Wuhan, China youtu.be/IJQxKli-1yA
- 2016 • Bacteriophages, Moscow, Russia
- 2016 • Midwest Pathogenesis, Urbana, IL youtu.be/jIVgQGu1hdc
- 2016 • Phage-Based Technologies..., Stratford-Upon-Avon, UK youtu.be/dVVFIO5qrBk
- 2016 • Viruses of Microbes IV, Liverpool, UK youtu.be/NH2EKfzxCGo
- 2016 • Phage Therapy World Congress, Paris, France youtu.be/mEr2r4jZYxU
- 2016 • Inst. Sci. & Technol. (IST) Austria, Klosterneuburg, Austria
- 2015 • Ashland University, Ashland, Ohio
- 2015 • Akron University, Akron, Ohio youtu.be/wrTPcvRkpqg
- 2015 • Tufts Medical School, Boston
- 2014 • Inst. Sci. & Technol. (IST) Austria, Klosterneuburg, Austria
- 2014 • §§ ...Biocontrol Plant Dis, Hiroshima, Japan youtu.be/M7phwMhDXmE
- 2014 • §§ Microorganisms and Human Health 2014, Yanji, China youtu.be/v2mNEGG8qmU
- 2014 • Viruses of Microbes III, Zurich, Switzerland youtu.be/RVpt7fsMoKk
- 2013 • §§ William and Mary College (opening talk for their “Phage Phest”)
- 2012 • Bowling Green State University, Bowling Green, OH
- 2012 • Viruses of Microbes II, Brussels, Belgium youtu.be/0FdKJqLuKlA
- 2011 • Miami University, Oxford, OH
- 2011 • Evergreen International Phage Meeting, Olympia, WA
- 2010 • Arizona State University, Tempe, AZ
- 2009 • Evergreen International Phage Meeting, Olympia, WA
- 2008 • Omnilytics, Salt Lake City, UT
- 2008 • Ashland University, Ashland, OH
- 2008 • Int. Symp. Biological Control Bacterial Plant Diseases, Orlando, FL
- 2008 • University of South Florida, Tampa, FL
- 2008 • University of Leicester, Leicester, England
- 2008 • Institute of Biochemistry and Biophysics, Warsaw, Poland
- 2008 • Catholic University of Leuven, Leuven, Belgium
- 2008 • Pasteur Institute, Paris, France
- 2008 • Teagasc Moorepark Biotechnology Centre, (near) Cork, Ireland
- 2008 • Yale University, New Haven, CT
- 2007 • §§ Soc. Gen. Microbiol. meeting, Edinburgh (opening talk of phage ecology symposium)

§§ Advertised keynote and/or opening talk of meeting or symposium

- 2007 • Bowling Green State University, Bowling Green, OH
- 2007 • Evergreen International Phage Meeting, Olympia, WA
- 2007 • Foundation Les Treilles meeting, (near) Nice, France
- 2007 • Cleveland Natural History Museum, Cleveland, OH
- 2006 • Evolution meeting, Stoneybrook, NY
- 2005 • International conference on phage therapy, Tbilisi, Georgia
- 2005 • Evergreen International Phage Meeting, Olympia, WA
- 2004 • Eliava Institute, Tbilisi, Georgia
- 2003 • ^{ss}Evergreen International Phage Meeting, Olympia, WA
- 2001 • Ohio Medical College, Toledo, OH
- 2001 • Evergreen International Phage Meeting, Olympia, WA
- 2000 • University of Ljubljana, Ljubljana, Slovenia
- 2000 • Millennial Phage Meeting, Montreal, CA
- 2000 • Ben Gurion University of the Negev, Beersheba, Israel
- 1999 • Evergreen International Phage Meeting, Olympia, WA
- 1997 • Evergreen International Phage Meeting, Olympia, WA
- 1995 • Evergreen International Phage Meeting, Olympia, WA
- 1995 • The Ohio State University, Columbus, OH

SERVICE

PRESENTATIONS—Other (not peer or edited reviewed, especially online) [SERVICE]

- 1) **Abedon, S. T.** (2025). Essais de thérapeutique au moyen du Bactériophage du Staphylocoque, par B. Bruynoghe et J. Maisin. Comptes Rendus de la Société de Biologie, 1921, 85:1120-1121, a Google Gemini translation asmallerflea.org/2025/10/23/essais-de-therapeutique-au-moyen-du-bacteriophage-du-staphylocoque-par-b-bruynoghe-et-j-maisin-comptes-rendus-de-la-societe-de-biologie-1921-851120-1121-a-google-gemini-translation/
- 2) **Abedon, S. T.** (2025). Le bacteriophage dans l'organisme. Note by R. Appelmans, presented by R. Bruynoghe. Comptes Rendus de l'Académie des Sciences, 1921, 85:722-724, a Claude.ai Translation. asmallerflea.org/2025/10/17/le-bacteriophage-dans-lorganisme-note-by-r-appelmans-presented-by-r-bruynoghe-comptes-rendus-de-lacademie-des-sciences-1921-85722-724-a-claude-ai-translation/
- 3) **Abedon, S. T.** (2025). Sur le rôle du microbe filtrant bactériophage dans la dysenterie bacillaire. Note de M.F. D'HÉRELLE, présentée par M. Roux. Comptes Rendus de l'Académie des Sciences, 1918, 167:970-972, a Google Translation. asmallerflea.org/2025/08/15/sur-le-role-du-microbe-filtrant-bacteriophage-dans-la-dysenterie-bacillaire-note-de-m-f-dherelle-presentee-par-m-roux-comptes-rendus-de-lacademie-des-sciences-1918-167970-972-a-google-translation/
- 4) **Abedon, S. T.** (2024). Le Dosage Du Bactériophage, Note de R. Appelmans, présentée par R. Bruynoghe, Réunion de la Société Belge de Biologie, 1921, pp. 1098-1099, a Google Translation. <https://asmallerflea.org/2024/12/23/le-dosage-du-bacteriophage-note-de-r-appelmans-presentee-par-r-bruynoghe-reunion-de-la-societe-belge-de-biologie-1921-pp-1098-1099-a-google-translation>
- 5) **Abedon, S. T.** (2022). Monitoring the Ecology vs. Evolutionary Biology of Phage Resistance: A Tale of Two Precisions. <https://asmallerflea.org/2022/07/21/monitoring-the-ecology-vs-evolutionary-biology-of-phage-resistance-a-tale-of-two-precisions/>

- 6) Alves, D. R., **Abedon, S. T.*** (2016-2017). Phage Therapy Bibliography (publications.phage-therapy.org)
- 7) **Abedon, S. T.** (2017). Phage Adsorption Theory. (adsorption.phage.org)
- 8) **Abedon, S. T.** (2016). Advantages of Phage Therapy. (advantages.phage-therapy.org)
- 9) **Abedon, S. T.** (2016). Introduction to Bacteriophages (introduction.phage-therapy.org) (this was actually authored and posted some years ago but was updated to its current form in 2016; as of January 15, 2019, it has 99 Facebook likes)
- 10) **Abedon, S. T.** (2016). Phage Workers (scholars.phage.org) (this page is an ongoing effort which currently lists the Google Scholar pages of 193 phage workers, as limited only by the willingness of people to generate these pages for themselves; as of January 15, 2019, it has 95 Facebook likes)
- 11) **Abedon, S. T.** (2015-2018). Phage Companies (companies.phage.org) (as of January 15, 2019, it has 16 Facebook likes)
- 12) **Abedon, S. T.** (2016). Virion Location of Most Phage Depolymerases. <https://asmallerflea.org/2016/12/13/virion-location-of-most-phage-depolymerases/>
- 13) **Abedon, S. T.** (2016). Attacking Biofilms: Another Quote, Plus Some Discussion. <https://asmallerflea.org/2016/12/13/attacking-biofilms-another-quote-plus-some-discussion/>
- 14) **Abedon, S. T.** (2016). Bacterial Lawns as Biofilm-Like Environments: A New Old Quotation. <https://asmallerflea.org/2016/12/10/bacterial-lawns-as-biofilm-like-environments-a-new-old-quotation/>
- 15) **Abedon, S. T.** (2016). Phage Tails as Polymeric Substance Probes: Arguments For and Against. asmallerflea.org/2016/11/13/phage-tails-as-polymeric-substance-probes-arguments-for-and-against/
- 16) **Abedon, S. T.** (2016). Freezing Selects for Phage T7 Deletion Mutations... Not! asmallerflea.org/2016/10/24/freezing-selects-for-phage-t7-deletion-mutations-not/
- 17) **Abedon, S. T.** (2016). d'Hérelle, F. (1918). Sur le rôle du microbe filtrant bactériophage dans la dysentérie bacillaire. *Compt. rend. Acad. Sci.* 167:970-972. asmallerflea.org/2016/04/22/dherelle-f-1918-sur-le-role-du-microbe-filtrant-bacteriophage-dans-la-dysenterie-bacillaire-compt-rend-acad-sci-167970-972/
- 18) **Abedon, S. T.** (2015). E. coli, CRISPR, Biases in Our Understanding of Phage Ecology, and Possible Implications for Phage Therapy. <http://asmallerflea.org/2015/02/01/e-coli-crispr-biases-in-our-understanding-of-phage-ecology-and-possible-implications-for-phage-therapy/>
- 19) **Abedon, S. T.** (2015). Importance of Specificity. <http://asmallerflea.org/2015/01/25/importance-of-specificity/>
- 20) **Abedon, S. T.** (2014). Phage-Mediated Biocontrol of Plant Pathogens (2001 to "current"). asmallerflea.org/2014/09/19/phage-mediated-biocontrol-of-plant-pathogens-2001-to-current/
- 21) **Abedon, S. T.** (2014). Going Bottomless in the Plaque World. asmallerflea.org/2014/09/13/going-bottomless-in-the-plaque-world/
- 22) **Abedon, S. T.** (2014). Ambiguous Phage Terms. asmallerflea.org/2014/08/22/ambiguous-phage-terms/
- 23) **Abedon, S. T.** (2014). Phage Therapy Case Study from 1936. asmallerflea.org/2014/08/05/phage-therapy-case-study-from-1936/
- 24) **Abedon, S. T.** (2014). A Quote or Two from Hoeflmayr (1963): "Inhalation Therapy Using Bacteriophages in Therapy-Resistant Infections" asmallerflea.org/2014/08/02/a-quote-or-two-from-hoeflmayr-1963-inhalation-therapy-using-bacteriophages-in-therapy-resistant-infections/
- 25) **Abedon, S. T.** (2014). Bacteriophages, Spatial Structure, and the Joys and Limitations of a Swiss Pass. asmallerflea.org/2014/07/28/bacteriophages-spatial-structure-and-the-joys-and-limitations-of-a-swiss-pass/
- 26) **Abedon, S. T.** (2009). Bacteriophages (phages). (has been updated and moved to phage-therapy.org/writings/bacteriophages.html)
- 27) **Abedon, S. T.** (2007). Phage Meetings. *BEG News* 26. (editorial)

- 28) Duffy, S.^{*}, **Abedon, S. T.** (2007). The Development of Plaques and the Mechanism of Phage Action in Solidified Agar. Translation (from German) of Mayr-Harting, A. (1958). Die Entwicklung von Phagenloechern und der mechanismus der Phagenwirkung in festen Naehrboeden. *Zentralblatt für Bakteriologie, Parasitenkunde, Infektionskrankheiten und Hygiene. 1. Abt., Originale* 171:380-392. *BEG News* 26.
- 29) Hyman, P.^{*}, **Abedon, S. T.** (2007). W.W.C. Topley and the “Missing” Phage Reference. *BEG News* 26.
- 30) **Abedon, S. T.** (2006). Phage Ecology on Wikipedia. *BEG News* 25. (editorial)
- 31) **Abedon, S. T.** (2005). Phage Books — Phage T-Shirt. *BEG News* 23. (editorial/bibliography)
- 32) **Abedon, S. T.** (2005). *BEG News*, the Final Quarterly Issue. *BEG News* 24. (editorial)
- 33) **Abedon, S. T.** (2004). ASM Conference on the New Phage Biology. *BEG News* 19. (editorial)
- 34) **Abedon, S. T.** (2004). Early (pre-1950) Phage References. *BEG News* 19. (bibliography)
- 35) **Abedon, S. T.** (2004). The Bacteriophage Literome – Part I. *BEG News* 22. (editorial)
- 36) **Abedon, S. T.** (2004). The Cyanophage Literome. *BEG News* 22. (bibliography)
- 37) **Abedon, S. T.** (2003). Some Recent Phage and Phage-Related Patents. *BEG News* 17. (bibliography)
- 38) **Abedon, S. T.** (2002). Mathematics for Microbiologists. *BEG News* 11. (editorial)
- 39) **Abedon, S. T.** (2002). Calling a Phage a “Phage”. *BEG News* 13. (editorial)
- 40) **Abedon, S. T.** (2001). How Big is 10^{30} ? *BEG News* 7. (essay)
- 41) **Abedon, S. T.** (2001). The Bacteriophage Rise. *BEG News* 10. (editorial)
- 42) **Abedon, S. T.** (2000). Bacteriophages as Model Systems. *BEG News* 3. (editorial)
- 43) **Abedon, S. T.** (2000). Lytic, Lysogenic, Temperate, Chronic, Virulent, Quoi? *BEG News* 5. (editorial)
- 44) **Abedon, S. T.** (2000). Which Ecology are You? *BEG News* 6. (editorial)
- 45) **Abedon, S. T.** (1999). BEG: What are We, Where are We, and Where We’re Going. *BEG News* 1. (editorial)
- 46) **Abedon, S. T.** (1999). When Grown *In Vitro*, do Parasites of Multicellular Organisms (MOPs) become Unicellular Organism Parasites (UOPs)? *BEG News* 2. (editorial)
- 47) Scott, E. C., Matzke, N. J., Branch, G., **Abedon, S. T.**, *et al.* (2004). The Morphology of Steve. *Annals of Improbable Research* 10(4)24-29. (my contribution: <1%)
- 48) **Abedon, S. T.** (1993). The isolation of T-even phages (feces –?–> P.C./PC –> gamma –> T2; Sewage –?–> T4/T6). *T4 News* (February 7).
- 49) **Abedon, S. T.** (1992). What is an ORF? *T4 News* 6(1).
- 50) **Abedon, S. T.** (1992). Bottle lysate T4 stock preparation: What if your cultures won't clear? *T4 News* 6(1).

PRESENTATIONS—Websites and Web Pages (other than as listed above) [SERVICE]

- 1) **Abedon, S. T.** (2011-2022). ISVM.org (a.k.a., phagesociety.org). This is the web site for the International Society for the Viruses of Microorganisms.

- 2) **Abedon, S. T.** (2006-2008). Wikipedia projects:
en.wikipedia.org/wiki/Human_microbiome_project
 (100% initiated by me)
en.wikipedia.org/wiki/Microbial_population_biology
 (100% initiated by me)
en.wikipedia.org/wiki/Phage_ecology (~99% my effort)
en.wikipedia.org/wiki/Phage_meetings (100% my effort—no longer exists)
en.wikipedia.org/wiki/Phage_monographs (~100% initiated by me; >90% my effort)
en.wikipedia.org/wiki/Category:Bacteriophage (50% my effort—no longer exists)
en.wikipedia.org/wiki/Category:Microbial_population_biology (100% initiated by me)
en.wikipedia.org/wiki/Category:Microbiology (contributed to)
en.wikipedia.org/wiki/Category:Phage_workers (75% my effort)
- 3) **Abedon, S. T.** (2004). TheBacteriophages.org, in support of the text, *The Bacteriophages*, 2nd edition (thebacteriophages.org).
- 4) **Bacteriophage Ecology Group** (phage.org):
 - **Abedon, S. T.** (2017). Archaeal Viruses (archaealviruses.org)
 - **Abedon, S. T.** (2011-2017). Phage Therapy (phage-therapy.org) (As of January 18, 2019 it has 102 Facebook likes)
 - **Abedon, S. T.** (2011-2013). Bacteriophage Terms (archaealviruses.org/terms/), a glossary of phage terms. Nearly 100 terms entered. Intention is to eventually convert to a phage.org-based URL.
 - **Abedon, S. T.** (1996-present). The Bacteriophage Ecology Group (phage.org) (as of January 15, 2016 it and/or its associated Facebook blog has 2183 Facebook likes)
 - **Abedon, S. T.** (1999-2007). *Bacteriophage Ecology Group News*, on-line newsletter with 26 issues published.
 - Ackermann, H.-W., **Abedon, S. T.** (2001). Bacteriophage names 2000, a list of over 5,000 phage names and associated hosts (phage.org/names/2000/).
- 5) **Academic Service:**
 - **Abedon, S. T.** (2011-present). Biology as Poetry (www.biologyaspoetry.com), a glossary of biological terms that I use in teaching introductory biology for non-majors and in teaching introductory microbiology. (as of January 16, 2015, it and/or its associated Facebook blog has 326 Facebook likes)
 - **Abedon, S. T.** (1998-2005). Microbiology and Immunology at the Ohio State University, a guide to microbiology and immunology research performed on the various Ohio State University campuses.
 - **Abedon, S. T.** (1996-2005). *BioPort*. Introductory biology on-line lecture notes, index, and WWW portal.



- **Abedon, S. T.** (1996-2004). *MicroPort*. Introductory microbiology on-line lecture notes, index, and WWW portal.

NOTABLE SERVICE [SERVICE]

2017-on	• Associate editor, <i>Frontiers in Microbiology</i>
2017	• Member of organizing committee, Evergreen meeting
2016	• Chaired session, Bacteriophages meeting (Moscow)
2016	• Member of organizing committee (honorary), Bacteriophages (Moscow)
2016	• Chaired session, Phage-Based Technologies... (Stratford-upon-Avon, UK)
2016	• Co-chaired ½ meeting (full day), Phage Therapy World Congress (Paris)
2016	• Member of org. com (honorary), Phage Therapy World Congress (Paris)
2015	• Chaired session, Evergreen Meeting (Olympia, WA)
2015	• OSU-Mansfield President of Faculty Assembly (elected position)
2014	• Chaired session, Viruses of Microbes III Meeting, 2014
2014	• OSU-Mansfield President of Faculty Assembly (elected position)
2014	• Member of organizing committee, Viruses of Microbes III Meeting, 2014
2011-2022	• Served as Officer/Executive Board member, “International Society for Viruses of Microorganisms” (isvm.org)
2010-2016	• Associate editor, <i>Bacteriophages</i> , a journal to published starting in January, 2011 (landesbioscience.com/journals/bacteriophage)
2010	• Served as phone-in reviewer on NIH study panel
2009-2010	• Contributed to the development of “International Society for Viruses of Microorganisms” (one of a core group of five individuals particularly involved in initial society development)
2008	• Participated in NIH Roadmap Human Microbiome Project workshop, Bethesda, MD, March 27, Lu Wang & Jane Peterson, chairs
2007	• Chaired opening session, International Bacteriophage Biology (Evergreen) Meeting (Olympia, WA)
2007	• Chaired session, Foundation Les Treilles meeting, in France
2007	• Invited talk, Teacher’s Symposium 2007, Change Through Time, Cleveland Museum of Natural History
2006	• Served on two-day CIHR Grant Peer Review Panel
2006-on	• Reviewed grants for NSF
2006	• OSU-Mansfield Secretary of Faculty Assembly (elected position)
2005-on	• Reviewed grants for NIH
2003	• OSU-Mansfield President of Faculty Assembly (elected position)
2002	• OSU-Mansfield President of Faculty Assembly (elected position)
2002	• OSU-Mansfield Chairman of Curriculum Committee (elected position)
2000	• Chaired session, The 2000 Millennial Phage Meeting (Montreal)

- 1998 • Chaired opening session, International Bacteriophage Biology (Evergreen) Meeting (Olympia, WA)
- 1996 • Founded the Bacteriophage Ecology Group (www.phage.org)
- 1991 • Chaired opening session, International Bacteriophage Biology (Evergreen) Meeting (Olympia, WA)

OTHER

CONSULTING [SERVICE]

- 2013-present • Phagelux, phagelux.com
- 2011 • Local company, on phage-related issues
 - Advanced Biodetection Technologies Laboratory (Colorado School of Mines): advisory board
- 2009-2013 • BigDNA: advisory panel, bigdna.com
- 2009 • PhageVax: *Ad hoc* advising, phagevax.com
- 2003 • Omnilytics, Utah: prepared report titled, “What makes bacteriophages safe?”, omnilytics.com (for full text of this document, see: cienciaviva.pt/rede/oceanos/2desafio/243.pdf)
- 2000-2010 • Phage Biotech: advisory panel, phage-biotech.com

TEACHING

COURSES TAUGHT [TEACHING]

1. Bio 101/1101 • Intro Biology for non-majors: '11... '24 (>10 times)
2. Bio 102/1102 • Human Biology for non-majors: '97, '03, '14... '16, '18... '23 (>10 times)
3. Bio 113 • Intro Biology for majors, freshman: '96... '08 (>10 times)
4. Bio 114/1114 • 2nd intro Biology for majors, freshman: '96... '07, '13 (>10 times)
5. Biochem 511/4511 • Intro Biochemistry for non-Biochemistry majors: '01, '24 (twice)
6. EEOB 232 • Introductory Physiology: '11, '12 (twice)
7. His/Pharm 3708 • Vaccines: A Global History: '24 (team taught, once)
8. Micro 509/4000 • Intro Microbiology, non-Micro majors: '95... '15, '17, '19, '24 (>20 times)
9. Micro h669 • Honors Microbial Evolution: '05, '07, '09, '10, '11 (five times)
10. Micro 5149 • Introduction to Virology: '21
11. Micro 5169 • Microbial Evolution (non-honors version): '13, '14 (twice)

TEXTBOOKS I'VE WRITTEN FOR USE IN MY CLASSROOMS***

- 1) **Abedon, S. T.** (drafted and taught from multiple times, Bio 1102, Human Biology). *Biology as Poetry: Human Biology*. >100,000 words with extensive YouTube video embedding. The public version can be found here: biologyaspoetry.com/textbooks/human_biology/ [\[textbook\]](#)
- 2) **Abedon, S. T.** (drafted and taught from multiple times, Bio 1101, non-major's introductory biology). *Biology as Poetry: Introductory Biology*. >100,000 words. [\[textbook\]](#)
- 3) **Abedon, S. T.** (drafted and taught from multiple times, Bio 1101, non-major's introductory biology). *Biology as Poetry: Introductory Biology Laboratories*. >20,000 words. [\[textbook\]](#)
- 4) **Abedon, S. T.** (drafted and taught from multiple times, Micro 4000, introductory microbiology for professionals). *Micro 4000 Laboratories*. >100,000 words. [\[textbook\]](#)
- 5) **Abedon, S. T.** (drafted in 2007 and taught from three times, Micro h669/5169). *Microbes and Evolution: An Introduction to Microbial Evolution*. >100,000 words. The public version can be found here: biologyaspoetry.com/textbooks/microbes_and_evolution/ [\[textbook\]](#)

ADDITIONAL ACHIEVEMENTS

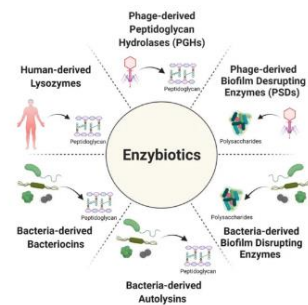
Antibiotics (IF=4.6; mdpi.com/journal/antibiotics; 1/18/2022, one article):

Highly Accessed Articles

Review

Treating Bacterial Infections with Bacteriophage-Based Enzybiotics: In Vitro, In Vivo and Clinical Application

by Katarzyna M. Danis-Wlodarczyk et al.
Antibiotics 2021
Published: 6 December 2021



Open Access Editor's Choice Review



Treating Bacterial Infections with Bacteriophage-Based Enzybiotics: In Vitro, In Vivo and Clinical Application

by Katarzyna M. Danis-Wlodarczyk, Daniel J. Wozniak and Stephen T. Abedon
Antibiotics 2021, 10(12), 1497; <https://doi.org/10.3390/antibiotics10121497> - 06 Dec 2021

Abstract Over the past few decades, we have witnessed a surge around the world in the emergence of antibiotic-resistant bacteria. This global health threat arose mainly due to the overuse and misuse of antibiotics as well as a relative lack of new drug classes [...] [Read more](#). (This article belongs to the Special Issue **Bacteriolysins and Other Phage-Based Strategies to Combat Bacterial Infections**)

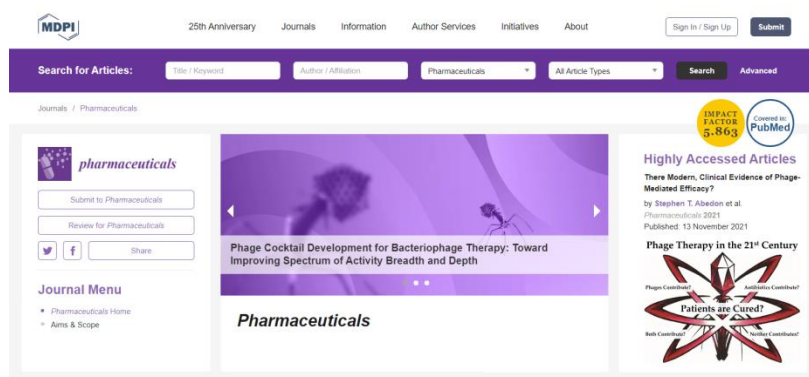
Editor's Choice articles are based on recommendations by the scientific editors of MDPI journals from around the world. Editors select a small number of articles recently published in the journal that they believe will be particularly interesting to authors, or important in this field. The aim is to provide a snapshot of some of the most exciting work published in the various research areas of the journal.

1 of 48
of 1561
in 2021

(1 of 48 Editor's Choice articles of 1561 total articles published in 2021.)

Pharmaceuticals (IF=5.9; mdpi.com/journal/pharmaceuticals; 12/2021, two different articles):

*** These are made available free online to my students.

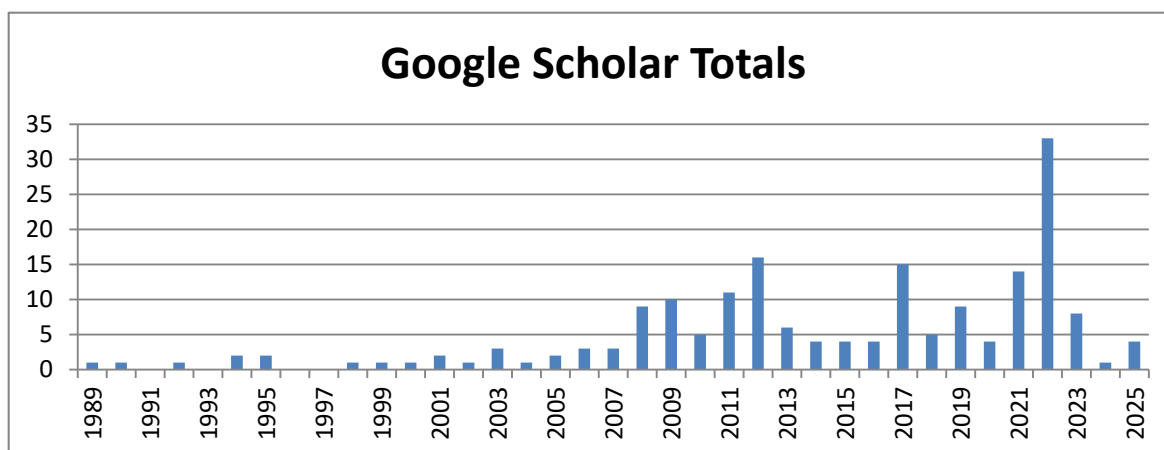


Bacteriophage, two of four most read (tandfonline.com/toc/kbac20/current):



Bacteriophage, three of four most cited (tandfonline.com/toc/kbac20/current):





Analysis of numbers of publications per year determined over various time intervals:

	Since 1989	Since 1995	Since 2000	Since 2010
mean	5.1	5.9	6.8	8.9
geomean	n.a.	n.a.	4.6	6.6
median	3	4	4	5.5
Count (years)	37	31	26	16

Titles (in journal special issue, “The ‘Nuts and Bolts’ of Phage Therapy”) ^{†††}	Cites ^{‡‡}
The ‘nuts and bolts’ of phage therapy (Introduction) (Abedon)	29
Phage choice, isolation, and preparation for phage therapy (Gill and Hyman)	626
Designing phage therapeutics (Goodridge)	195
Phage therapy pharmacology (Abedon and Thomas-Abedon)	411
Bacteriophage for biocontrol of foodborne pathogens: calculations and considerations ^{§§§}	506
Phage therapy in clinical practice: treatment of human infections (Kutter <i>et al.</i>) ^{****}	920
Total:	2687

^{†††} Published in *Current Pharmaceutical Biotechnology* (2010).

^{‡‡} Citations are according to Google Scholar as accessed on September 11, 2025.

^{§§§} Hagens and Loessner

^{****} Kutter, De Vos, Gvasalia, Alavidze, Gogokhia, Kuhl, Abedon

MOST SUCCESSFUL YOUTUBE VIDEOS (w/>2.5 k views) [TEACHING] (as of Dec. 1, 2024)

youtu.be/BjTamY0MAhc	66 k views	Substrate-Level Phosphorylation
youtu.be/9rnghq1rDS0	55 k views	Osmosis and Osmotic Pressure
youtu.be/WaqHymcTmE8	38 k views	Coeloms...
youtu.be/L4hDr3Hpwws	30 k views	Down a Concentration Gradient
youtu.be/A-AYpYwq84M	21 k views	ATP and Energy Coupling
youtu.be/epA2OYjTYUg	19 k views	Mitosis
youtu.be/zdK_v6NG7Mk	19 k views	Proton Motive Force
youtu.be/LpBostP5uvw	18 k views	Secondary Endosymbiosis
youtu.be/JX8xEfEzu9I	13 k views	Starfish Development...
youtu.be/XxMrHrMIqRM	13 k views	Muller's Ratchet
youtu.be/8k_roiYuvZ4	13 k views	Allosteric Inhibition
youtu.be/_wufqehNQoI	11 k views	Chemostat
youtu.be/zeNvmoh7ZyY	11 k views	Fruits, Different Types
youtu.be/b3AZnWIVLnQ	8.5 k views	Homozygote and Heterozygote
youtu.be/TjJeu0nwq-Q	7.5 k views	Phenotypic Plasticity
youtu.be/W2XghQdAPgc	6.7 k views	Allele Fixation
youtu.be/63Vh3rC9kSk	6.1 k views	Darwinian Fitness
youtu.be/fs0P3dIW6ak	6.0 k views	Conditional Mutation
youtu.be/kFXW0BQChr4	5.8 k views	Bacterial Toxins
youtu.be/bSwd-pjjuaA	5.2 k views	Polymorphism
youtu.be/Ga7OUYyTH8M	4.7 k views	Antagonistic Pleiotropy
youtu.be/5Yw-z_llNHU	4.7 k views	Importance of Microorganisms
youtu.be/gq1n__H8OSE	4.1 k views	Cytoplasm
youtu.be/nY7hBmDcjb0	4.0 k views	Genetic Locus
youtu.be/LyPYvL3FJaQ	4.0 k views	Serial Endosymbiosis
youtu.be/HoNMhPU3szc	4.0 k views	Micelles
youtu.be/1gOHNg0XJMY	4.0 k views	Exploitative Competition
youtu.be/4YYZ-WvmOXY	4.0 k views	What is Microbiology?
youtu.be/VrQIAxxkDe4	3.5 k views	Growth Rate vs Growth Yield
youtu.be/PIg46kDHQh8	3.5 k views	Mutation Accumulation
youtu.be/lzMpvfZ5jB4	3.5 k views	Glucose Oxidation in Cellular Respiration
Total views	~550 k views	Includes traffic due to my students
Total watch time	~18 k hours	Includes traffic due to my students
Total subscribers	~1.5 k	

SCIENTIFIC OUTPUT—Listed In Chronological Order

1. **Abedon, S. T.** 1989. Selection for bacteriophage latent period length by bacterial density: A theoretical examination. *Microb. Ecol.* **18**:79-88.
2. **Abedon, S. T.** 1990a. Selection for lysis inhibition in bacteriophage. *J. Theor. Biol.* **146**:501-511.
3. **Abedon, S. T.** 1990b. The Ecology of Bacteriophage T4. University of Arizona.
4. **Abedon, S. T.** 1992a. Lysis of lysis inhibited bacteriophage T4-infected cells. *J. Bacteriol.* **174**:8073-8080.
5. **Abedon, S. T.** 1992b. Bottle lysate T4 stock preparation: what if your cultures won't clear? *T4 News* **6**:
6. **Abedon, S. T.** 1994. Lysis and the interaction between free phages and infected cells, p. 397-405. In J. D. Karam, E. Kutter, K. Carlson, and B. Guttman (ed.), *The Molecular Biology of Bacteriophage T4*. ASM Press, Washington, DC.
7. **Paddison, P., S. T. Abedon, H. K. Dressman, K. Gailbreath, J. Tracy, E. Mosser, J. Neitzel, B. Guttman, and E. Kutter.** 1998. The roles of the bacteriophage T4 r genes in lysis inhibition and fine-structure genetics: a new perspective. *Genetics* **148**:1539-1550.
8. **Broder, C. C., P. L. Earl, D. Long, S. T. Abedon, B. Moss, and R. W. Doms.** 1994. Antigenic implications of human immunodeficiency virus type 1 envelope quaternary structure: oligomer-specific and -sensitive monoclonal antibodies. *Proc. Natl. Acad. Sci. U. S. A* **91**:11699-11703.
9. **Abedon, S. T.** The isolation of T-even phages (feces -> P.C./PC --> gamma --> T2; Sewage -> T4/T6). *T4 News* (Feb 17). 1993.
10. **Abedon, S. T.** 1999. Bacteriophage T4 resistance to lysis-inhibition collapse. *Genet. Res.* **74**:1-11.
11. **Abedon, S. T.** 2000. The murky origin of Snow White and her T-even dwarfs. *Genetics* **155**:481-486.
12. **Abedon, S. T., T. D. Herschler, and D. Stopar.** 2001. Bacteriophage latent-period evolution as a response to resource availability. *Appl. Environ. Microbiol.* **67**:4233-4241.
13. **Abedon, S. T., P. Hyman, and C. Thomas.** 2003. Experimental examination of bacteriophage latent-period evolution as a response to bacterial availability. *Appl. Environ. Microbiol.* **69**:7499-7506.
14. **Gill, J. J., and S. T. Abedon.** 2003. Bacteriophage ecology and plants. APSnet Feature <https://www.apsnet.org/edcenter/apsnetfeatures/Documents/2003/BacteriophageEcology.pdf>
15. **Goodridge, L., and S. T. Abedon.** 2003. Bacteriophage biocontrol and bioprocessing: application of phage therapy to industry. *SIM News* **53**:254-262.

16. **Abedon, S. T., and J. T. LeJeune.** 2005. Why bacteriophage encode exotoxins and other virulence factors. *Evol. Bioinform. Online* **1**:97-110.
17. **Breibart, M., F. Rohwer, and S. T. Abedon.** 2005. Phage ecology and bacterial pathogenesis, p. 66-91. In M. K. Waldor, D. I. Friedman, and S. L. Adhya (ed.), *Phages: Their Role in Bacterial Pathogenesis and Biotechnology*. ASM Press, Washington DC.
18. **Abedon, S. T.** 2006. Phage ecology, p. 37-46. In R. Calendar and S. T. Abedon (ed.), *The Bacteriophages*. Oxford University Press, Oxford.
19. **Calendar, R., and S. T. Abedon.** 2006. *The Bacteriophages*. Oxford University Press, Oxford.
20. **Abedon, S. T., and R. R. Culler.** 2007a. Optimizing bacteriophage plaque fecundity. *J. Theor. Biol.* **249**:582-592.
21. **Abedon, S. T., and R. R. Culler.** 2007b. Bacteriophage evolution given spatial constraint. *J. Theor. Biol.* **248**:111-119.
22. **Abedon, S. T.** 2008a. Ecology of viruses infecting bacteria, p. 71-77. In B. W. J. Mahy and M. H. V. Van Regenmortel (ed.), *Encyclopedia of Virology*, 3rd ed. Elsevier, Oxford.
23. **Abedon, S. T.** 2008b. *Bacteriophage Ecology: Population Growth, Evolution, and Impact of Bacterial Viruses*. Cambridge University Press, Cambridge, UK.
24. **Abedon, S. T.** 2008c. Phages, ecology, evolution, p. 1-28. In S. T. Abedon (ed.), *Bacteriophage Ecology*. Cambridge University Press, Cambridge, UK.
25. **Abedon, S. T.** 2008d. Phage population growth: constraints, games, adaptation, p. 64-93. In S. T. Abedon (ed.), *Bacteriophage Ecology*. Cambridge University Press, Cambridge, UK.
26. **Abedon, S. T., and J. Yin.** 2008. Impact of spatial structure on phage population growth, p. 94-113. In S. T. Abedon (ed.), *Bacteriophage Ecology*. Cambridge University Press, Cambridge, UK.
27. **Abedon, S. T.** 2008e. Phage, bacteria, and food. Appendix: Rate of adsorption is function of phage density, p. 321-324. In S. T. Abedon (ed.), *Bacteriophage Ecology*. Cambridge University Press, Cambridge, UK.
28. **Hyman, P., and S. T. Abedon.** 2008. Phage ecology of bacterial pathogenesis, p. 353-385. In S. T. Abedon (ed.), *Bacteriophage Ecology*. Cambridge University Press, Cambridge, UK.
29. **Stopar, D., and S. T. Abedon.** 2008. Modeling bacteriophage population growth, p. 389-414. In S. T. Abedon (ed.), *Bacteriophage Ecology*. Cambridge University Press, Cambridge, UK.
30. **Krone, S. M., and S. T. Abedon.** 2008. Modeling phage plaque growth, p. 415-438. In S. T. Abedon (ed.), *Bacteriophage Ecology*. Cambridge University Press, Cambridge, UK.
31. **Goodridge, L., and S. T. Abedon.** 2008. Bacteriophage biocontrol: the technology matures. *Microbiol. Aust.* **29**:48-49.

32. **Abedon, S. T., C. Breitenberger, E. E. Roden, and J. B. Williams.** 2008. Ecological processes: respiration, p. 3010-3020. In S. E. Jørgensen and B. D. Fath (ed.), *Encyclopedia of Ecology*. Elsevier, Oxford.
33. **Abedon, S. T., and J. Yin.** 2009. Bacteriophage plaques: theory and analysis. *Meth. Mol. Biol.* **501**:161-174.
34. **Abedon, S. T., S. Duffy, and P. E. Turner.** 2009. Bacteriophage ecology, p. 42-57. In M. Schaecter (ed.), *Encyclopedia of Microbiology*. Elsevier, Oxford.
35. **Abedon, S. T.** 2009a. Bacteriophage intraspecific cooperation and defection, p. 191-215. In H. T. Adams (ed.), *Contemporary Trends in Bacteriophage Research*. Nova Science Publishers, Hauppauge, New York.
36. **Abedon, S. T.** 2009b. Impact of phage properties on bacterial survival, p. 217-235. In H. T. Adams (ed.), *Contemporary Trends in Bacteriophage Research*. Nova Science Publishers, Hauppauge, New York.
37. **Abedon, S. T.** 2009c. Deconstructing chemostats towards greater phage-modeling precision, p. 249-283. In H. T. Adams (ed.), *Contemporary Trends in Bacteriophage Research*. Nova Science Publishers, Hauppauge, New York.
38. **Abedon, S. T.** 2009d. Disambiguating bacteriophage pseudolysogeny: an historical analysis of lysogeny, pseudolysogeny, and the phage carrier state, p. 285-307. In H. T. Adams (ed.), *Contemporary Trends in Bacteriophage Research*. Nova Science Publishers, Hauppauge, New York.
39. **Abedon, S. T.** 2009e. Kinetics of phage-mediated biocontrol of bacteria. *Foodborne Pathog. Dis.* **6**:807-815.
40. **Abedon, S. T.** 2009f. Phage evolution and ecology. *Adv. Appl. Microbiol.* **67**:1-45.
41. **Hyman, P., and S. T. Abedon.** 2009a. Bacteriophage (overview), p. 322-338. In M. Schaecter (ed.), *Encyclopedia of Microbiology*. Elsevier, Oxford.
42. **Hyman, P., and S. T. Abedon.** 2009b. Practical methods for determining phage growth parameters. *Meth. Mol. Biol.* **501**:175-202.
43. **Abedon, S. T.** 2010a. The 'nuts and bolts' of phage therapy. *Curr. Pharm. Biotechnol.* **11**:1
44. **Abedon, S. T., and C. Thomas-Abedon.** 2010. Phage therapy pharmacology. *Curr. Pharm. Biotechnol.* **11**:28-47.
45. **Kutter, E., D. De Vos, G. Gvasalia, Z. Alavidze, L. Gogokhia, S. Kuhl, and S. T. Abedon.** 2010. Phage therapy in clinical practice: treatment of human infections. *Curr. Pharm. Biotechnol.* **11**:69-86.
46. **Hyman, P., and S. T. Abedon.** 2010. Bacteriophage host range and bacterial resistance. *Adv. Appl. Microbiol.* **70**:217-248.

47. **Abedon, S. T.** 2010b. Bacteriophages and biofilms, p. 1-58. In W. C. Bailey (ed.), *Biofilms: Formation, Development and Properties*. Nova Science Publishers, Hauppauge, New York.
48. **Abedon, S. T.** 2011a. Lysis from without. *Bacteriophage* **1**:46-49.
49. **Abedon, S. T., S. J. Kuhl, B. G. Blasdel, and E. M. Kutter.** 2011a. Phage treatment of human infections. *Bacteriophage* **1**:66-85.
50. **Loc-Carrillo, C., and S. T. Abedon.** 2011. Pros and cons of phage therapy. *Bacteriophage* **1**:111-114.
51. **Abedon, S. T., C. Thomas-Abedon, A. Thomas, and H. Mazure.** 2011b. Bacteriophage prehistory: is or is not Hankin, 1896, a phage reference? *Bacteriophage* **1**:174-178.
52. **Abedon, S. T.** 2011b. Facilitation of CRISPR adaptation. *Bacteriophage* **1**:179-181.
53. **Abedon, S. T.** 2011c. Envisaging bacteria as phage targets. *Bacteriophage* **1**:228-230.
54. **Abedon, S.** 2011d. Phage therapy pharmacology: calculating phage dosing. *Adv. Appl. Microbiol.* **77**:1-40.
55. **Curtright, A. J., and S. T. Abedon.** 2011. Phage therapy: emergent property pharmacology. *J. Bioanalyt. Biomed.* **S3**:010
56. **Abedon, S. T.** 2011e. Communication among phages, bacteria, and soil environments. *Soil Biology* **23**:37-65.
57. **Abedon, S. T.** 2011f. Size does matter - distinguishing bacteriophages by genome length (and 'breadth'). *Microbiol. Aust.* 95-96.
58. **Abedon, S. T.** 2011g. *Bacteriophages and Biofilms: Ecology, Phage Therapy, Plaques*. Nova Science Publishers, Hauppauge, New York.
59. **Hyman, P., and S. T. Abedon.** 2012a. Smaller fleas: viruses of microorganisms. *Scientifica* **2012**:734023
60. **Hyman, P., and S. T. Abedon.** 2012b. *Bacteriophages in Health and Disease*. CABI Press, Wallingford, UK.
61. **Abedon, S. T.** 2012a. Phages, p. 1-5. In P. Hyman and S. T. Abedon (ed.), *Bacteriophages in Health and Disease*. CABI Press, Wallingford, UK.
62. **Kuhl, S., P. Hyman, and S. T. Abedon.** 2012. Diseases caused by phages, p. 21-32. In P. Hyman and S. T. Abedon (ed.), *Bacteriophages in Health and Disease*. CABI Press, Wallingford, UK.

63. **Clark, J., S. T. Abedon, and P. Hyman.** 2012. Phages as therapeutic delivery vehicles, p. 86-100. In P. Hyman and S. T. Abedon (ed.), *Bacteriophages in Health and Disease*. CABI Press, Wallingford, UK.
64. **Abedon, S. T.** 2012b. Phage therapy best practices, p. 256-272. In P. Hyman and S. T. Abedon (ed.), *Bacteriophages in Health and Disease*. CABI Press, Wallingford, UK.
65. **Hyman, P., and S. T. Abedon.** 2012c. Bacteriophage (overview), p. 166-182. In M. Schaecter (ed.), *The Desktop Encyclopedia of Microbiology*. Elsevier, Oxford.
66. **Abedon, S. T.** 2012c. Bacterial 'immunity' against bacteriophages. *Bacteriophage* **2**:50-54.
67. **Abedon, S. T.** 2012d. Thinking about microcolonies as phage targets. *Bacteriophage* **2**:200-204.
68. **Abedon, S. T.** 2012e. Salutary contributions of viruses to medicine and public health, p. 389-405. In G. Witzany (ed.), *Viruses: Essential Agents of Life*. Springer-Verlag, Heidelberg.
69. **Abedon, S. T.** 2012f. Spatial vulnerability: bacterial arrangements, microcolonies, and biofilms as responses to low rather than high phage densities. *Viruses* **4**:663-687.
70. **Blasdel, B. G., and S. T. Abedon.** 2013. Superinfection immunity, S. Mayloy and K. Hughes (ed.), *Brenner's Encyclopedia of Genetics*. Elsevier/Academic Press,
71. **Chan, B. K., and S. T. Abedon.** 2012a. Bacteriophage adaptation, with particular attention to issues of phage host range, p. 25-52. In A. Quiberoni and J. Reinheimer (ed.), *Bacteriophages in Dairy Processing*. Nova Science Publishers, Hauppauge, New York.
72. **Chan, B. K., and S. T. Abedon.** 2012b. Phage therapy pharmacology: phage cocktails. *Adv. Appl. Microbiol.* **78**:1-23.
73. **Hyman, P., and S. T. Abedon.** 2012d. High-affinity and-specificity, bacteriophage-based technologies: beyond phage therapy-Mini Review. *CABI Reviews* 1-3.
74. **Abedon, S. T., and K. L. Murray.** 2013. Archaeal viruses, not archaeal phages: an archaeological dig. *Archaea*. **2013**:251245
75. **Abedon, S. T.** 2013. Are archaeons incapable of being parasites or have we simply failed to notice? *BioEssays* **35**:501
76. **Allen, H. K., and S. T. Abedon.** 2013. That's disturbing! An exploration of the bacteriophage biology of change. *Front. Microbiol.* **4**:295
77. **Chan, B. K., S. T. Abedon, and C. Loc-Carrillo.** 2013. Phage cocktails and the future of phage therapy. *Future Microbiol.* **8**:769-783.
78. **Abedon, S. T.** 2014a. Phage therapy: eco-physiological pharmacology. *Scientifica* **2014**:581639

79. **Abedon, S. T.** 2014b. Bacteriophages as drugs: the pharmacology of phage therapy, p. 69-100. In J. Borysowski, R. Miedzybrodzki, and A. Górski (ed.), *Phage Therapy: Current Research and Applications*. Caister Academic Press, Norfolk, UK.
80. **Allen, H. K., and S. T. Abedon.** 2014. Virus ecology and disturbances: impact of environmental disruption on the viruses of microorganisms. *Front. Microbiol.* **5**:700
81. **Abedon, S. T.** 2014c. A quote or two from Hoeflmayr (1963): "Inhalation therapy using bacteriophages in therapy-resistant infections". <https://asmallerflea.org/2014/08/02/a-quote-or-two-from-hoeflmayr-1963-inhalation-therapy-using-bacteriophages-in-therapy-resistant-infections/>.
82. **Abedon, S. T.** 2014d. Bacteriophages, spatial structure, and the joys and limitations of a Swiss pass. <https://asmallerflea.org/2014/07/28/bacteriophages-spatial-structure-and-the-joys-and-limitations-of-a-swiss-pass/>.
83. **Abedon, S. T.** 2014e. Phage therapy case study from 1936. <https://asmallerflea.org/2014/08/05/phage-therapy-case-study-from-1936/>.
84. **Abedon, S. T.** 2014f. Phage-mediated biocontrol of plant pathogens (2001 to "current").
85. **Abedon, S. T.** 2014g. Going bottomless in the plaque world. <https://asmallerflea.org/2014/09/13/going-bottomless-in-the-plaque-world/>.
86. **Abedon, S. T.** 2014h. Ambiguous phage terms. <https://asmallerflea.org/2014/08/22/ambiguous-phage-terms/>.
87. **Abedon, S. T.** 2015a. Ecology of anti-biofilm agents I: antibiotics versus bacteriophages. *Pharmaceuticals* **8**:525-558.
88. **Abedon, S. T.** 2015b. Ecology of anti-biofilm agents II: bacteriophage exploitation and biocontrol of biofilm bacteria. *Pharmaceuticals* **8**:559-589.
89. **Abedon, S. T.** 2015c. Phage therapy of pulmonary infections. *Bacteriophage* **5**:e1020260
90. **Abedon, S. T.** 2015d. Bacteriophage secondary infection. *Virol. Sin.* **30**:3-10.
91. **Allen, H. K., and S. T. Abedon.** 2015. That's disturbing! An exploration of the bacteriophage biology of change. *Frontiers in Microbiology*,
92. **Chan, B. K., and S. T. Abedon.** 2015. Bacteriophages and their enzymes in biofilm control. *Curr. Pharm. Des.* **21**:85-99.
93. **Hyman, P., and S. T. Abedon.** 2015. Bacteriophage (overview), M. J. Caplan (ed.), *Reference Module in Biomedical Sciences*. Elsevier, Oxford.
94. **Kutter, E. M., S. J. Kuhl, and S. T. Abedon.** 2015. Re-establishing a place for phage therapy in western medicine. *Future Microbiol.* **10**:685-688.

95. **Abedon, S. T.** 2015e. Importance of specificity.
<https://asmallerflea.org/2015/01/25/importance-of-specificity/>.
96. **Abedon, S. T.** 2015f. E. Coli, CRISPR, biases in our understanding of phage ecology, and possible implications for phage therapy. <https://asmallerflea.org/2015/02/01/e-coli-crispr-biases-in-our-understanding-of-phage-ecology-and-possible-implications-for-phage-therapy/>.
97. **Abedon, S. T.** 2016a. Phage therapy dosing: the problem(s) with multiplicity of infection (MOI). *Bacteriophage* **6**:e1220348
98. **Abedon, S. T.** 2016b. Phage tails as polymeric substance probes: arguments for and against. <https://asmallerflea.org/2016/11/13/phage-tails-as-polymeric-substance-probes-arguments-for-and-against/>.
99. **Abedon, S. T.** 2016c. Commentary: Phage therapy of staphylococcal chronic osteomyelitis in experimental animal model. *Front. Microbiol.* **7**:1251
100. **Abedon, S. T.** 2016d. Bacteriophage exploitation of bacterial biofilms: phage preference for less mature targets? *FEMS Microbiol. Lett.* **363**:fnv246
101. **Hobbs, Z., and S. T. Abedon.** 2016. Diversity of phage infection types and associated terminology: the problem with 'lytic or lysogenic'. *FEMS Microbiol. Lett.* **363**:fnw047
102. **Abedon, S. T.** 2016e. d'Hérelle, f. (1918). Sur le rôle du microbe filtrant bactériophage dans la dysentérie bacillaire. *Compt. Rend. Acad. Sci.* **167**:970-972.
<https://asmallerflea.org/2016/04/22/dherelle-f-1918-sur-le-role-du-microbe-filtrant-bacteriophage-dans-la-dysenterie-bacillaire-compt-rend-acad-sci-167970-972/>.
103. **Abedon, S. T.** 2016f. Freezing selects for phage T7 deletion mutations... not!
<https://asmallerflea.org/2016/10/24/freezing-selects-for-phage-t7-deletion-mutations-not/>.
104. **Abedon, S. T.** 2016g. Bacterial lawns as biofilm-like environments: a new old quotation.
<https://asmallerflea.org/2016/12/10/bacterial-lawns-as-biofilm-like-environments-a-new-old-quotation/>.
105. **Abedon, S. T.** 2016h. Attacking biofilms: another quote, plus some discussion.
<https://asmallerflea.org/2016/12/13/attacking-biofilms-another-quote-plus-some-discussion/>.
106. **Abedon, S. T.** 2016i. Virion location of most phage depolymerases.
<https://asmallerflea.org/2016/12/13/virion-location-of-most-phage-depolymerases/>.
107. **Abedon, S. T.** 2017a. Bacteriophage clinical use as antibacterial "drugs": utility, precedent. *Microbiol. Spectr.* **5**:BAD-0003-2016.
108. **Abedon, S. T.** 2017b. Phage name check. <http://namecheck.phage.org>.

109. **Abedon, S. T.** 2017c. Titering calculator. <http://titering.phage.org>.
110. **Abedon, S. T.** 2017d. Killing titer calculator. <http://killingtiter.phage-therapy.org/calculator.html>.
111. **Abedon, S. T.** 2017e. Multiplicity of infection calculator. <http://moicalculator.phage.org>.
112. **Abedon, S. T.** 2017f. Information phage therapy research should report. *Pharmaceuticals* **10**:43
113. **Howard-Varona, C., K. R. Hargreaves, S. T. Abedon, and M. B. Sullivan.** 2017. Lysogeny in nature: mechanisms, impact and ecology of temperate phages. *ISME J* **11**:1511-1520.
114. **Abedon, S. T.** 2017g. Phage "delay" towards enhancing bacterial escape from biofilms: a more comprehensive way of viewing resistance to bacteriophages. *AIMS Microbiol.* **3**:186-226.
115. **Blasdel, B. G., and S. T. Abedon.** 2017. Superinfection immunity, AnonymousReference Module in Life Sciences. Elsevier.
116. **Abedon, S. T.** 2017h. Plaques, AnonymousReference Module in Life Sciences. Elsevier,
117. **Abedon, S. T.** 2017i. Multiplicity of infection, AnonymousReference Module in Life Sciences. Elsevier,
118. **Abedon, S. T., P. García, P. Mullany, and R. Aminov.** 2017a. Phage Therapy: Past, Present and Future. *Frontiers in Microbiology*,
119. **Abedon, S. T.** 2017j. Why archaea are limited in their exploitation of other, living organisms, p. 41-66. In G. Witzany (ed.), *Biocommunication of Archaea*.
120. **Alves, D. R., and S. T. Abedon.** 2017. An online phage therapy bibliography: separating under-indexed wheat from overly indexed chaff. *AIMS Microbiol.* **3**:525-528.
121. **Abedon, S. T., P. García, P. Mullany, and R. Aminov.** 2017b. Editorial: phage therapy: past, present and future. *Front. Microbiol.* **8**:981
122. **Abedon, S. T.** 2017k. Commentary: Communication between viruses guides lysis-lysogeny decisions. *Front. Microbiol.* **8**:983
123. **Abedon, S. T.** 2017l. Active bacteriophage biocontrol and therapy on sub-millimeter scales towards removal of unwanted bacteria from foods and microbiomes. *AIMS Microbiol.* **3**:649-688.
124. **Abedon, S. T.** 2017m. Phage half-life calculator. http://phage.org/calculators/phage_half_life.html.
125. **Abedon, S. T.** 2017n. Bacterial half-life calculator. http://phage.org/calculators/bacterial_half_life.html.
126. **Abedon, S. T.** 2017o. Bad phage terms. http://phage.org/writings/bad_terms.html.

127. **Howard-Varona, C., D. R. Vik, N. E. Solonenko, Y. F. Li, M. C. Gazitua, L. Chittick, J. K. Samiec, A. E. Jensen, P. Anderson, A. Howard-Varona, A. A. Kinkhabwala, S. T. Abedon, and M. B. Sullivan.** 2018. Fighting fire with fire: phage potential for the treatment of *E. coli* O157 infection. *Antibiotics* (Basel) **7**:
128. **Hyman, P., and S. T. Abedon.** 2018a. *Viruses of Microorganisms*. Norwich, UK, Caister Academic Press.
129. **Hyman, P., and S. T. Abedon.** 2018b. Viruses of microorganisms: what are they and why should we care?, p. 3-14. In P. Hyman and S. T. Abedon (ed.), *Viruses of Microorganisms*. Norwich, UK, Caister Academic Press.
130. **Abedon, S. T.** 2018a. Viruses of domain Archaea, p. 167-192. In P. Hyman and S. T. Abedon (ed.), *Viruses of Microorganisms*. Norwich, UK, Caister Academic Press.
131. **Alves, D. R., J. Clark, and S. T. Abedon.** 2018. Viruses as biocontrol agents of microorganisms, p. 313-330. In P. Hyman and S. T. Abedon (ed.), *Viruses of Microorganisms*. Norwich, UK, Caister Academic Press.
132. **Abedon, S. T., and T. I. Katsaounis.** 2018. Basic phage mathematics. *Meth. Mol. Biol.* **1681**:3-30.
133. **Abedon, S. T.** 2018b. Phage therapy: various perspectives on how to improve the art. *Meth. Mol. Biol.* **1734**:113-127.
134. **Abedon, S. T.** 2018c. Bacteriophage clinical use as antibacterial "drugs": utility, precedent, P. Cani and R. Britton (ed.), *Bugs as Drugs*. ASM Press, Washington DC.
135. **Abedon, S. T.** 2019a. Use of phage therapy to treat long-standing, persistent, or chronic bacterial infections. *Adv. Drug Deliv. Rev.* **145**:18-39.
136. **Igler, C., and S. T. Abedon.** 2019. Commentary: A host-produced quorum-sensing autoinducer controls a phage lysis-lysogeny decision. *Front. Microbiol.* **10**:1171
137. **Abedon, S. T.** 2019b. Phage-antibiotic combination treatments: antagonistic impacts of antibiotics on the pharmacodynamics of phage therapy? *Antibiotics* **8**:182
138. **Abedon, S. T.** 2019c. Look who's talking: T-even phage lysis inhibition, the granddaddy of virus-virus intercellular communication research. *Viruses* **11**:951
139. **Dabrowska, K., and S. T. Abedon.** 2019. Pharmacologically aware phage therapy: pharmacodynamic and pharmacokinetic obstacles to phage antibacterial action in animal and human bodies. *Microbiol. Mol. Biol. Rev.* **83**:e00012-19.
140. **Burmeister, A. R., S. T. Abedon, and P. E. Turner.** 2019. *Bacteriophage Ecology*, AnonymousEncyclopedia of Microbiology. Elsevier.
141. **Abedon, S. T.** 2019d. General ecology of bacteriophages, B. W. J. Mahy and M. H. V. Van Regenmortel (ed.), *Encyclopedia of Virology*, 4th ed. Elsevier, Oxford.

142. **Abedon, S. T.** 2020a. Bacteriophage-mediated biocontrol of wound infections, and ecological exploitation of biofilms by phages, p. 121-158. In M. Shiffman and M. Low (ed.), *Biofilm, Pilonidal Cysts and Sinuses. Recent Clinical Techniques, Results, and Research in Wounds*, vol 1. Springer Nature, Cham, Switzerland.
143. **Abedon, S. T.** 2019e. Phage therapy: a one-hundred-year-old alternative to modern, chemical antibiotics. <https://atlasofscience.org/phage-therapy-a-one-hundred-year-old-alternative-to-modern-chemical-antibiotics/>.
144. **Abedon, S. T.** 2020b. Phage-phage, phage-bacteria, and phage-environment communication, p. 23-70. In G. Witzany (ed.), *Biocommunication of Phages*. Springer, Cham, Switzerland.
145. **Trubl, G., P. Hyman, S. Roux, and S. T. Abedon.** 2020. Coming-of-age characterization of soil viruses: a user's guide to virus isolation, detection within metagenomes, and viromics. *Soil Sys.* **4**:23
146. **Danis-Wlodarczyk, K., K. Dabrowska, and S. T. Abedon.** 2020. Phage therapy: the pharmacology of antibacterial viruses, p. 49-132. In A. Coffey and C. Buttmer (ed.), *Exploitation of Bacteriophages for Biocontrol and Therapeutics*. Caister Academic Press, Norwich, UK.
147. **Abedon, S. T.** 2020c. Phage cocktail optimizer. http://www.phage-therapy.org/calculators/cocktail_optimizer.html.
148. **Abedon, S. T.** 2020d. Phage cross-resistance avoider. http://www.phage-therapy.org/calculators/xresistance_avoider.html.
149. **Alves, D. R., and S. T. Abedon.** 2020. *Phage Therapy and Phage-Mediated Biological Control*. Pharmaceuticals,
150. **Abedon, S.** 2020e. Bringing phage therapy soon to a clinic near you. *Lancet Infect. Dis.* **20**:551
151. **Harper, D. R., S. T. Abedon, B. H. Burrowes, and M. L. McConville.** 2021. *Bacteriophages: Biology, Technology, Therapy*. Springer Nature Switzerland AG, New York City.
152. **Abedon, S. T.** 2021a. Detection of bacteriophages: phage plaques, p. 507-538. In D. R. Harper, S. T. Abedon, B. H. Burrowes, and M. McConville (ed.), *Bacteriophages: Biology, Technology, Therapy*. Springer Nature Switzerland AG, New York City.
153. **Dabrowska, K., A. Górski, and S. T. Abedon.** 2021. Bacteriophage pharmacology and immunology, p. 295-339. In D. Harper, S. T. Abedon, B. H. Burrowes, and M. McConville (ed.), *Bacteriophages: Biology, Technology, Therapy*. Springer Nature Switzerland AG, New York City.
154. **Abedon, S. T., and T. I. Katsaounis.** 2021. Detection of bacteriophages: statistical aspects of plaque assay, p. 539-560. In D. Harper, S. T. Abedon, B. H. Burrowes, and M. McConville (ed.), *Bacteriophages: Biology, Technology, Therapy*. Springer Nature Switzerland AG, New York City.

155. **Dennehy, J. J., and S. T. Abedon.** 2021a. Adsorption: phage acquisition of bacteria, p. 93-117. In D. Harper, S. T. Abedon, B. H. Burrowes, and M. McConville (ed.), *Bacteriophages: Biology, Technology, Therapy*. Springer Nature Switzerland AG, New York City.
156. **Dennehy, J. J., and S. T. Abedon.** 2021b. Bacteriophage ecology, p. 253-294. In D. Harper, S. T. Abedon, B. H. Burrowes, and M. McConville (ed.), *Bacteriophages: Biology, Technology, Therapy*. Springer Nature Switzerland AG, New York City.
157. **Dennehy, J. J., and S. T. Abedon.** 2021c. Phage infection and lysis, p. 341-383. In D. Harper, S. T. Abedon, B. H. Burrowes, and M. McConville (ed.), *Bacteriophages: Biology, Technology, Therapy*. Springer Nature Switzerland AG, New York City.
158. **Danis-Wlodarczyk, K., K. Dabrowska, and S. T. Abedon.** 2021a. Phage therapy: the pharmacology of antibacterial viruses. *Curr. Issues Mol. Biol.* **40**:81-164.
159. **Abedon, S. T., K. Danis-Wlodarczyk, and D. R. Alves.** 2021a. Phage therapy in the 21st Century: is there modern, clinical evidence of phage-mediated clinical efficacy? *Pharmaceuticals* **14**:1157
160. **Abedon, S. T., K. M. Danis-Wlodarczyk, D. J. Wozniak, and M. B. Sullivan.** 2021b. Improving phage-biofilm in vitro experimentation. *Viruses* **13**:1175
161. **Abedon, S. T.** 2021b. General ecology of bacteriophages, p. 314-321. In D. H. Bamford and M. Zuckerman (ed.), *Encyclopedia of Virology*. Academic Press, Oxford.
162. **Hyman, P., G. Trubl, and S. T. Abedon.** 2021. Virus-like particle: evolving meanings in different disciplines. *Phage* **2**:11-15.
163. **Abedon, S. T., K. M. Danis-Wlodarczyk, and D. J. Wozniak.** 2021c. Phage cocktail development for bacteriophage therapy: toward improving spectrum of activity breadth and depth. *Pharmaceuticals* **14**:1019
164. **Danis-Wlodarczyk, K. M., D. J. Wozniak, and S. T. Abedon.** 2021b. Treating bacterial infections with bacteriophage-based enzybiotics: in vitro, in vivo and clinical application. *Antibiotics* **10**:1497
165. **Danis-Wlodarczyk, K. M., A. Cai, A. Chen, M. R. Gittrich, M. B. Sullivan, D. J. Wozniak, and S. T. Abedon.** 2021c. Friends or foes? Rapid determination of dissimilar colistin and ciprofloxacin antagonism of *Pseudomonas aeruginosa* phages. *Pharmaceuticals* **14**:1162
166. **Abedon, S. T.** 2022a. *Bacteriophages as Drivers of Evolution: An Evolutionary Ecological Perspective*. Springer, Cham, Switzerland.
167. **Abedon, S. T.** 2022b. Bacteriophages, a brief introduction, p. 3-14. In Anonymous *Bacteriophages as Drivers of Evolution: An Evolutionary Ecological Perspective*. Springer, Cham, Switzerland.

168. **Abedon, S. T.** 2022c. A closer overview of phage infections, p. 15-27. In AnonymousBacteriophages as Drivers of Evolution: An Evolutionary Ecological Perspective. Springer, Cham, Switzerland.
169. **Abedon, S. T.** 2022d. Evolutionary biology basics, p. 29-40. In AnonymousBacteriophages as Drivers of Evolution: An Evolutionary Ecological Perspective. Springer, Cham, Switzerland.
170. **Abedon, S. T.** 2022e. Brief introduction to phage ecology, p. 41-52. In AnonymousBacteriophages as Drivers of Evolution: An Evolutionary Ecological Perspective. Springer, Cham, Switzerland.
171. **Abedon, S. T.** 2022f. Bacterial mutation associated with phages: insertions, p. 55-68. In AnonymousBacteriophages as Drivers of Evolution: An Evolutionary Ecological Perspective. Springer, Cham, Switzerland.
172. **Abedon, S. T.** 2022g. Bacterial mutation associated with phages: deletions, p. 69-76. In AnonymousBacteriophages as Drivers of Evolution: An Evolutionary Ecological Perspective. Springer, Cham, Switzerland.
173. **Abedon, S. T.** 2022h. Genetic drift and phages, p. 77-86. In AnonymousBacteriophages as Drivers of Evolution: An Evolutionary Ecological Perspective. Springer, Cham, Switzerland.
174. **Abedon, S. T.** 2022i. Phages and asexual bacterial populations, p. 87-94. In AnonymousBacteriophages as Drivers of Evolution: An Evolutionary Ecological Perspective. Springer, Cham, Switzerland.
175. **Abedon, S. T.** 2022j. Phage impact on non-random mating among bacteria, p. 95-102. In AnonymousBacteriophages as Drivers of Evolution: An Evolutionary Ecological Perspective. Springer, Cham, Switzerland.
176. **Abedon, S. T.** 2022k. Genetic migration and phages, p. 105-113. In AnonymousBacteriophages as Drivers of Evolution: An Evolutionary Ecological Perspective. Springer, Cham, Switzerland.
177. **Abedon, S. T.** 2022l. Bacterial reproductive isolation and its violation by phages, p. 115-123. In AnonymousBacteriophages as Drivers of Evolution: An Evolutionary Ecological Perspective. Springer, Cham, Switzerland.
178. **Abedon, S. T.** 2022m. Phage-provided environmental DNA and superspreading, p. 125-135. In AnonymousBacteriophages as Drivers of Evolution: An Evolutionary Ecological Perspective. Springer, Cham, Switzerland.
179. **Abedon, S. T.** 2022n. Transduction of large amounts of DNA, p. 137-150. In AnonymousBacteriophages as Drivers of Evolution: An Evolutionary Ecological Perspective. Springer, Cham, Switzerland.
180. **Abedon, S. T.** 2022o. Phage morons, p. 153-164. In AnonymousBacteriophages as Drivers of Evolution: An Evolutionary Ecological Perspective. Springer, Cham, Switzerland.

181. **Abedon, S. T.** 2022p. Why lysogenic conversion?, p. 165-177. In AnonymousBacteriophages as Drivers of Evolution: An Evolutionary Ecological Perspective. Springer, Cham, Switzerland.
182. **Abedon, S. T.** 2022q. Prophages preventing phage superinfection, p. 179-191. In AnonymousBacteriophages as Drivers of Evolution: An Evolutionary Ecological Perspective. Springer, Cham, Switzerland.
183. **Abedon, S. T.** 2022r. Domestication of phage genes, p. 193-203. In AnonymousBacteriophages as Drivers of Evolution: An Evolutionary Ecological Perspective. Springer, Cham, Switzerland.
184. **Abedon, S. T.** 2022s. Resistance to phages, part I: overview, p. 207-215. In AnonymousBacteriophages as Drivers of Evolution: An Evolutionary Ecological Perspective. Springer, Cham, Switzerland.
185. **Abedon, S. T.** 2022t. Resistance to phages, part II: bacteria live!, p. 217-229. In AnonymousBacteriophages as Drivers of Evolution: An Evolutionary Ecological Perspective. Springer, Cham, Switzerland.
186. **Abedon, S. T.** 2022u. Resistance to phages, part III: bacteria die, p. 231-242. In AnonymousBacteriophages as Drivers of Evolution: An Evolutionary Ecological Perspective. Springer, Cham, Switzerland.
187. **Abedon, S. T.** 2022v. Bacterial mutation to phage resistance, p. 243-252. In AnonymousBacteriophages as Drivers of Evolution: An Evolutionary Ecological Perspective. Springer, Cham, Switzerland.
188. **Abedon, S. T.** 2022w. Pleiotropic costs of phage resistance, p. 253-262. In AnonymousBacteriophages as Drivers of Evolution: An Evolutionary Ecological Perspective. Springer, Cham, Switzerland.
189. **Abedon, S. T.** 2022x. Concepts of natural selection in light of phage exposure, p. 265-274. In 7 (ed.), Bacteriophages as Drivers of Evolution: An Evolutionary Ecological Perspective. Springer, Cham, Switzerland.
190. **Abedon, S. T.** 2022y. Frequency-dependent selection in light of phage exposure, p. 275-292. In AnonymousBacteriophages as Drivers of Evolution: An Evolutionary Ecological Perspective. Springer, Cham, Switzerland.
191. **Abedon, S. T.** 2022z. A primer on phage-bacterium antagonistic coevolution, p. 293-315. In AnonymousBacteriophages as Drivers of Evolution: An Evolutionary Ecological Perspective. Springer, Cham, Switzerland.
192. **Abedon, S. T.** 2022{. Pathways to phage therapy enlightenment, or why I've become a scientific curmudgeon. *Phage* **3**:95-97.
193. **Abedon, S. T.** 2022|. Further considerations on how to improve phage therapy experimentation, practice, and reporting: pharmacodynamics perspectives. *Phage* **3**:98-111.

194. **Abedon, S. T.** 2022}. Monitoring the ecology vs. evolutionary biology of phage resistance: a tale of two precisions. <https://asmallerflea.org/2022/07/21/monitoring-the-ecology-vs-evolutionary-biology-of-phage-resistance-a-tale-of-two-precisions/>.
195. **Abedon, S. T.** 2022~. Decimal reduction time phage therapy calculator. https://phage-therapy.org/calculators/decimal_reduction.html.
196. **Abedon, S. T.** 2022□. Inundative phage density calculator. <http://www.phage-therapy.org/calculators/inundative.html>.
197. **Abedon, S. T.** 2022€. Poisson frequencies calculator. <http://www.phage.org/calculators/Poisson.html>.
198. **Abedon, S. T.** 2022☐. Active phage therapy calculator. <http://killingtiter.phage-therapy.org/calculator.html>.
199. **Abedon, S. T.** 2022,. Phage adsorptions calculator. <https://phage-therapy.org/calculators/adsorptions.html>.
200. **Alves, D. R., and S. T. Abedon.** 2022. Phage Therapy and Phage-Mediated Biological Control 2021. Pharmaceuticals,
201. **Abedon, S. T.** 2023a. Evolution of bacteriophage latent period length, p. 375-426. In T. E. Dickins and B. J. A. Dickens (ed.), *Evolutionary Biology: New Perspectives on its Development*. Springer, Cham, Switzerland.
202. **Abedon, S. T.** 2023b. Ecology and evolutionary biology of hindering phage therapy: the phage tolerance vs. phage resistance of bacterial biofilms. *Antibiotics* **12**:245
203. **Petrovic Fabijan, A., J. Iredell, K. Danis-Wlodarczyk, R. Kebriaei, and S. T. Abedon.** 2023. Translating phage therapy into the clinic: recent accomplishments but continuing challenges. *PLoS Biol.* **21**:e3002119
204. **Abedon, S. T.** 2023c. Bacteriophage adsorption: likelihood of virion encounter with bacteria and other factors affecting rates. *Antibiotics* **12**:723
205. **Abedon, S. T.** 2023d. Schlesinger nailed it! Assessing a key primary pharmacodynamic property of phages for phage therapy: virion encounter rates with motionless bacterial targets. *Drugs and Drug Candidates* **2**:673-688.
206. **Abedon, S. T.** 2023e. How simple maths can inform our basic understanding of phage therapy. *Clin. Infect. Dis.* **77**:S401-S406
207. **Abedon, S. T.** 2023f. Automating predictive phage therapy pharmacology. *Antibiotics (Basel)* **12**:1423
208. **Abedon, S. T., K. Danis-Wlodarczyk, R. Kebriaei, and A. Petrovic Fabijan.** 2023. Bacteriophages and Their Enzymes as Antibacterial Agents.

209. **Danis-Wlodarczyk, K., D. Alves, and S. T. Abedon.** 2024. Phage therapy: a clinician's guide, D. Liu (ed.), Handbook of Molecular Biology. CRC Press, Boca Raton, FL.
210. **Appelmans, R. and Abedon, S. T.** 2024. Le dosage du bactériophage, Note de R. Appelmans, présentée par R. Bruynoghe, Réunion de la Société Belge de Biologie, 1921, pp. 1098-1099, a Google Translation. <https://asmallerflea.org/2024/12/23/le-dosage-du-bacteriophage-note-de-r-appelmans-presentee-par-r-bruynoghe-reunion-de-la-societe-belge-de-biologie-1921-pp-1098-1099-a-google-translation/>.
211. **Abedon, S. T.** 2025a. Phage therapy: combating evolution of bacterial resistance to phages. *Viruses* **17**:1094
212. **Abedon, S. T.** 2025b. Breadth of depth of bacteriophage antibacterial activity. *Adv. Res. Sci.* **3**:1032
213. **Abedon, S. T.** 2025c. Optical density-based methods in phage biology: titering, lysis timing, host range, and phage-resistance evolution. *Viruses* **17**:1573
214. **Abedon, S. T.** 2025d. Dual-receptor recognition, lysis inhibition, endolysin release, and reaction-diffusion as alternative explanations. Comment on Rojero et al. Bypassing evolution of bacterial resistance to phages: the example of hyper-aggressive phage 0524phi7-1. *Int. J. Mol. Sci.* 2025, 26, 2914. *Int. J. Mol. Sci.* **26**:2914
215. **Abedon, S. T.** 2025e. Bacteriophage titering by optical density means: KOTE assays. *Open life sciences*
216. **Abedon, S. T.** 2025f. Dos and don'ts of bacteriophage one-step growth. <https://doi.org/10.20944/preprints202507.2624.v1>.
217. **Abedon, S. T.** 2025g. Phage Therapy Annotated Glossary. <https://doi.org/10.20944/preprints202508.0347.v1>.
218. **Abedon, S. T.** 2025h. Early use of kinetic 96-well plate readers to study phage-induced bacterial lysis: who was first? <https://doi.org/10.20944/preprints202510.1387.v1>.
219. **d'Hérelle, F. and Abedon, S. T.** 2025. Sur le rôle du microbe filtrant bactériophage dans la dysenterie bacillaire. Note de M.F. D'HÉRELLE, présentée par M. Roux. *Comptes Rendus de l'Académie des Sciences*, 1918, 167:970-972, a Google Translation. <https://asmallerflea.org/2025/08/15/sur-le-role-du-microbe-filtrant-bacteriophage-dans-la-dysenterie-bacillaire-note-de-m-f-dherelle-presentee-par-m-roux-comptes-rendus-de-lacademie-des-sciences-1918-167970-972-a-google-tra/>.
220. **Appelmans, R. and Abedon, S. T.** 2025. Le bacteriophage dans l'organisme. Note by R. Appelmans, presented by R. Bruynoghe. *Comptes Rendus de l'Académie des Sciences*, 1921, 85:722-724, a Claude.ai Translation. <https://asmallerflea.org/2025/10/17/le-bacteriophage-dans-lorganisme-note-by-r-appelmans-presented-by-r-bruynoghe-comptes-rendus-de-lacademie-des-sciences-1921-85722-724-a-claude-ai-translation/>.