

Dennis H. Bamford
Supervisor for doctoral programme
Aerovirology Research Group
Structure of the Viral Universe
Doctoral Programme in Integrative Life Science
Type of address: Postal address.
Finland



Curriculum vitae

1. Personal details and date of CV

Surname: Bamford

First names: Dennis Henry

Researcher identifier: <https://orcid.org/0000-0002-6438-8118>

Date of CV: 05.09.2021

2. Degrees

PhD, 1980, Genetics, Department of Genetics, University of Helsinki (UH), Finland

M.Sc. 1975, Genetics, Dept. of Genetics, UH, Finland

Title of Docent: Genetics, 1981-1993, Dept. of Genetics, UH, Finland

3. Current Employment

18.12.2016, Professor Emeritus, Faculty of Biological and Environmental Sciences, UH

4. Previous work experience

1993-2016, Professor in General Microbiology, Dept. of Biosciences, UH, Finland

2012-2016, Academy Professor, Dept. of Biosciences & Institute of Biotechnology, UH

2008-2011, Director, Finnish Center of Excellence in Virus Research, Dept. of Biosciences and Institute of Biotechnology, UH, Finland

2002-2007, Academy Professor, Dept. of Biosciences & Institute of Biotechnology, UH

1998-2002, Research Director, Professor, Institute of Biotechnology, UH, Finland

1992-1997, Research Director, Professor, Institute of Biotechnology, UH, Finland

1991-1992, Senior Scientist, Academy of Finland, UH, Finland

1983-1991, Senior Researcher, Academy of Finland, UH, Finland

1981-1982, EMBO postdoc. fellowship, Public Health Research Institute, New York, USA

1975-1981, Teaching assistant, Dept. of Genetics, UH, Finland

5. Research funding and grants, supervision and leadership experience

Since 1983, I have had continuous external funding including two Center of Excellences (See below), two Academy Professor positions (See below) and several EU, Academy of Finland, TEKES and Jusélius Foundation funds as well as Human Frontier Science Program funding. Major research funding from 2006 onwards is listed below:

Academy of Finland: Academy Professor (255342), Individual funding, 704 831 €, 1.1.2012-31.12.2016. Role: PI

Academy of Finland: Academy Professor: funding for research expenses (283072), 541 977 €, 1.1.2015-31.12.2016. Role: PI

PI

Academy of Finland: Academy Professor: funding for research expenses (256518), 800 684 €, 1.1.2012-31.12.2014. Role: PI

PI

Academy of Finland: Finnish Participation in EU ESFRI Instruct Operation, (272853), 322 695 €, 1.1.2014-31.12.2015.

Role: PI

Academy of Finland: Integrated Structural Biology Infrastructure, Instruct (ESFRI), (271413), 200 000 €, 14.12.2012-31.12.2014. Role: PI

Academy of Finland: Specificity in the RNA induced Innate Immunity Responses; an Enzymatic Toolkit for the Production of a Library of RNA Molecules (256197), Consortium (China, Germany, Finland), 230 000 €, 1.1.2012-31.12.2014. Role: Co-applicant.

Sigrid Jusélius Foundation: Virus-Specific RNAs and Polymerases as Molecular Targets and Tool for Drug Discovery. Collaboration, 167 400 €, 1.1.2013-31.12.2015. Role: Co-applicant.

EU COST Action, COST FA0806 (PlantiVax), 30.3.2009-29.3.2013.

Sigrid Jusélius Foundation: Viral RNA-Dependent RNA Polymerases as Tools and Targets for Antiviral Drug Design. Collaboration, 229 000 €, 1.6.2010-30.4.2013. Role: Co-applicant, Scientific Advisor.

Academy of Finland, Finnish Centre of Excellence in Virus Research. (213467, 129684), 2 268 000 €, 2006-2011. Role: PI, Research Director.

Academy of Finland, Finnish Centre of Excellence in Structural Virology. 2000-2005. Role: PI, Research Director.

6. Research output

Patents and biotechnical applications: "RNA polymerases from bacteriophage PHI 6-PHI 14 and use of thereof", WO 01/46396 A1, Priority: 1999-12-21 FI1999000002751, Patents: AU 785036 B2, NZ 519679 A, EP1242586 B1) and biotechnical applications in the field of RNA interference and such enzymes are globally available through Thermo Fisher Scientific Inc.

EU ESFRI (European Strategy Forum on Research Infrastructures) Instruct (Integrated Structural Biology Research Infrastructure) Director, 2010-2016; Council, observer, 2010-2016; Committee, member, 2010-2016.

EU ESFRI Instruct, Instruct Centre for Virus Production, Committee, chair, 2010-2016; working group chairman, 2008-2009.

7. Teaching merits

Planning and implementation of teaching in genetics, molecular virology, and microbiology at UH for PhD, MSc and BSc students (1980à).

Viikki Graduate Program in Molecular Biosciences, UH, director 2008-2013, steering group member 2000-2007.

International EU COST Training School on dsRNA production for plant virus protection, Helsinki, 7-12.9.2009. Organizer.

Evaluation board member for Structured PhD Education, Irish Higher Education Authority, 17 – 19. 11.2009.

8. Awards and honours

European Academy of Microbiology, invited member, 2013.

Scientific Community's golden decoration for 30 years of service pro science, 2013

Commander, Order of Finnish Lion, 2010

European Molecular Biology Organization (EMBO) member, elected 2006.

Societas Biochemica, Biophysica et Microbiologica Fenniae, honorary member, 2006.

University of Helsinki, Prize for scientific innovation (molecular biosciences), 2005.

9. Other key academic merits

Encyclopedia of Virology (Elsevier), fourth edition. Editor-in-Chief. 2017-2021.

External evaluator, Uppsala University (Sweden), 2017.

Steering group member, Publication Forum 2016-2020.

Editorial board membership, *Journal of General Virology*, 1981-1983; 2006–2010, *Journal of Virology*, 2006-2015.

International Committee on Taxonomy of Viruses, executive committee member 1996-2002, 2012- 2014; bacterial virus subcommittee chair on lipid-containing bacteriophages 1985-.

EMBL, Hamburg outstation evaluation board member, 2007.

Encyclopedia of Virology (Elsevier), associate editor responsible for bacterial and archaeal viruses, 2005-2008.

Virus Research, Special Issue on Viral Molecular Machines: Replication Systems within the Cores of dsRNAViruses (Elsevier), guest editor, 2004.

Finnish Academy of Science and Letters, member elected, 2002.

Societas Biochimica, Biophysica et Microbiologica Fenniae, president, 1999-2005.

UNESCO Associated Center of Excellence, Vilnius University, SAB member, 2000-2005.

Societas Biochimica, Biophysica et Microbiologica Fenniae, president, 1999-2005.

Board for Gene Technology (Competent Authority, EU), vice chairman 1995-1999.

Foundation for Biotechnical and Industrial Fermentation Research, Helsinki, executive committee member 1995-1998.

Faculty of Mathematics and Natural Sciences, UH, international evaluation committee member 1993, chairman 1994.

Maj and Tor Nessling Foundation, Finland, scientific advisory board, member 1988-1992, chairman 1992-1993.

Referee activity in *Nature*, *Nature Reviews in Microbiology*, *Journal of Virology*, *Nucleic Acids Research*, *PNAS*, *EMBO Journal*, *Science*, *Molecular Cell*, *Cell*, etc.

Several appointments as a pre-examiner or an opponent of doctoral dissertations in Finland and abroad.

Several appointments to evaluate academic competence (e.g. title of docent).

Appointments to evaluate ERC grant applications as an external expert (2017).

Major Institutional Responsibilities

Biocentrum Helsinki (University Center of Excellence), member, 1995- 2016.

Faculty of Biological and Environmental Sciences, UH, Finland, faculty council member, 2004-2009, 2012-2013.

Finnish Center of Excellence in Virus Research, director, 2006-2011.

Bio and Natural Sciences, UH, Finland, member of the fellowship fund board, 2004-2010.

Research Group Organization in Molecular Biosciences, UH, Finland, chairman, 2000-2006.

Program on Structural Virology, a National Center of Excellence, UH, Finland, director, 2000-2005.

Faculty of Mathematics and Natural Sciences, UH, Finland, faculty council member, 1992-1998.

Laboratory Animal Facility, UH, Finland, board member, 1994-1997.

Department of Electron Microscopy, UH, Finland, board member, 1992-1995.

Invited Oral presentations in international meetings since 2007

EMBL-RNA virus symposium, invited speaker, Heidelberg, Germany 6.3.2007

Symposium on Virology, Max-Planck-Gesellschaft, Berlin, Germany, invited speaker 12.4.2007.

Structure-Function Analysis of Viruses, Nantes, France, keynote speaker 31.5.2007.

Gordon conference on Structural, Functional and Evolutionary Genomics, Hingston, UK, invited speaker 29.7.2007.

VIZIER/EMBO workshop on RNA viruses: replication, evolution and drug design, Vienna, invited speaker 27.8. 2007.

Murnau Conference on Structural Biology, Murnau, Germany, plenary speaker 7.9.2007.

FASEB Conference on Virus Assembly, Saxtons River, USA, invited speaker 22.6.2008.

VIZIER/SPINE2 Workshop on Structural Virology, Vienna, invited speaker 14.6.2008.

1st Sino-Finn Life Science Forum, Wuhan, China, invited speaker 26.10.2008.

6th International Virus Assembly Symposium, Crete Greece, invited speaker 3.5.2009.

III Workshop on Structural Biology, Bilbao, Spain, Key note speaker, 4. 6. 2009.

5th Smögen Summer Symposium on Virology, Smögen Sweden, keynote speaker, 22.8.2009.

EU COST Workshop on Plant Virus Control based on RNA based Vaccines, Helsinki, invited speaker, 12.9.2009.

Colloquium on Genome Structure, Function and Evolution, Orsay, France, keynote speaker, 5.12.2009.

Wuhan University, China, invited seminar 27.11.2009.

INSTRUCT workshop on correlative microscopy, Oxford University, invited speaker 13.1.2010.

Society for General Microbiology, UK annual meeting, Edinburgh, plenary speaker, 29.3.2010.

INSTRUCT annual meeting, DESY Hamburg, invited speaker, 29.4.2010.

ESF-EMBO Symposium on antiviral applications of RNA interference Sant Feliu, Spain, invited speaker 30.5.2010.

Conference on Viruses of Microbes, Institut Pasteur, Paris, invited speaker and program committee member, 21.6.2010.

3rd Mathematical Virology Workshop, Ambleside, UK, invited speaker, 16.8.2010.

20th Biocity Symposium, University of Turku, Finland, invited speaker, 20.8.2010.

3rd Sino-Finn Life Science Forum, Shanghai, China, invited speaker, 30.10.2010.

Virology Symposium, Lund University, Sweden, keynote speaker, 14.3.2011.

Viruses of the Environment, Heidelberg, Germany, 22.3.2011.

British-Scandinavian meeting in Microbiology, Bergen, Norway, invited speaker, 26.5.2011.

Aquatic Virus Workshop AVW6 Texel, The Netherlands, invited speaker, 30.10.2011.

5th Monolith Summer Symposium, Portoroz, Slovenia, invited speaker, 1.6.2012.

EMBO Meeting on Viruses of Microbes, Brussels, Belgium, keynote speaker, 16.7.2012.

XII Spanish National Congress on Virology, Burgos, Spain, invited speaker, 9.6.2013.

American Society for Virology annual meeting, Pennsylvania, USA, plenary speaker, 20.7.2013

5th European Congress of Virology, Lyon, France, plenary speaker 11.9.2013.

Max Planck Institute, Heidelberg, Germany, invited speaker, 12.2.2014

Institut Pasteur, Paris, France, invited speaker, 5.3.2014

FASEB Summer Conference on Virus Assembly, Vermont, USA, keynote speaker, 29.6.2014

Viruses of Microbes, Zurich, Switzerland, invited speaker 14.7.2014

Extremophiles 2014, Saint Petersburg, invited speaker, 7.9.2014

Phages 2014, Oxford, UK, keynote speaker, 16.9.2014.

Physical Virology: From Structure to Evolution, Bilbao, Spain, plenary speaker, 9-11.3.2015

Phages 2015, Oxford, Great Britain, keynote speaker, 1-2.9.2015

International Symposium on Double-Stranded RNA Viruses, Goa, India, plenary speaker, 6-10.10.2015.

LUCA, its contemporaries and their viruses: 20 years after, Les Treilles, France, invited speaker, 9-14.5.2016.

Congress of Baltic Microbiologists, Vilnius, Lithuania, invited speaker, 18-21.10.2016.

Centennial Celebration of the Bacteriophage Research, Paris, France, invited speaker 24.4-26.4.2017

1st German Phage Symposium, Stuttgart, Germany, keynote speaker, 9-11.10.2017

10. Scientific and societal impact of research

I have published well over 350 internationally peer reviewed articles some 35 of them have appeared in high impact journals (impact factors from about ten upwards). These include more than 20 reviews and close to 40 chapters in research books. These papers have been cited more than 9000 times and my h-index is 52 (web of science, August 2016).

Our biochemical and atomic-level studies on the dsRNA bacteriophage phi6 RNA-dependent RNA polymerase has led to patents ("RNA polymerases from bacteriophage PHI 6-PHI 14 and use of thereof", WO 01/46396 A1, Priority: 1999-12-21 FI1999000002751, Patents: AU 785036 B2, NZ 519679 A, EP1242586 B1) and biotechnical applications in the field of

RNA interference and such enzymes are globally available through Thermo Fisher Scientific Inc.

Qualifications

Principal Investigator

Period : 01.12.2009 - 31.12.2016 in Institute of Biotechnology

Principal Investigator

Period : 01.12.2009 - * in Molecular and Integrative Biosciences Research Programme

Employment

Aerovirology Research Group

University of Helsinki

Finland

1 Sept 2017 → present

Group Leader

Structure of the Viral Universe

University of Helsinki

1 Dec 1993 → present

Supervisor for doctoral programme

Doctoral Programme in Integrative Life Science

University of Helsinki

Finland

1 Jan 2021 → present

Publications

Safe use of PHI6 IN the experimental studies

Sanmark, E., Kuula, J., Laitinen, S., Oksanen, L-M. A. H., Bamford, D. H. & Atanasova, N. S., Feb 2023, In: *Heliyon*. 9, 2, 10 p., e13565.

Bioaerosols in the atmosphere at two sites in Northern Europe in spring 2021: Outline of an experimental campaign

Sofiev, M., Sofieva, S., Palamarchuk, J., Šaulienė, I., Kadantsev, E., Atanasova, N., Fatahi, Y., Kouznetsov, R., Kuula, J., Noreikaite, A., Peltonen, M., Pihlajamäki, T. T., Saarto, A., Salokas, J., Toivainen, L., Tyuryakov, S., Sukiene, L., Asmi, E., Bamford, D. H., Hyvärinen, A-P., & 1 othersKarppinen, A., Nov 2022, In: *Environmental Research*. 214, Part 2, 20 p., 113798.

Effects of temperature and salinity on bubble-bursting aerosol formation simulated with a bubble-generating chamber

Sofieva, S., Asmi, E., Atanasova, N. S., Heikkilä, P., Vidal, E., Duplissy, J., Romantschuk, M., Kouznetsov, R., Kukkonen, J., Bamford, D. H., Hyvärinen, A-P. & Sofiev, M., 26 Oct 2022, In: *Atmospheric Measurement Techniques*. 15, 20, p. 6201-6219 19 p.

Measurement report: Introduction to the HyLCE-2018 campaign for measurements of ice-nucleating particles and instrument inter-comparison in the Hyttiala boreal forest

Brasseur, Z., Castarede, D., Thomson, E. S., Adams, M. P., Drossaart van Dusseldorf, S., Heikkilä, P., Korhonen, K., Lampilahti, J., Paramonov, M., Schneider, J., Vogel, F., Wu, Y., Abbatt, J. P. D., Atanasova, N. S., Bamford, D. H., Bertozi, B., Boyer, M., Brus, D., Daily, M. I., Fösig, R., & 25 othersGute, E., Harrison, A. D., Hietala, P., Höhler, K., Kanji, Z. A., Keskinen, J., Lacher, L., Lampimäki, M., Levula, J., Manninen, A., Nadolny, J., Peltola, M., Porter, G. C. E., Poutanen, P., Proske, U., Schorr, T., Silas Umo, N., Stenszky, J., Virtanen, A., Moisseev, D., Kulmala, M., Murray, B. J., Petäjä, T., Möhler, O. & Duplissy, J., 19 Apr 2022, In: *Atmospheric Chemistry and Physics*. 22, 8, p. 5117-5145 29 p.

Inline-tandem purification of viruses from cell lysate by agarose-based chromatography

Andersson Schönn, M., Eskelin, K., Bamford, D. H., Poranen, M., Unoson, C. & Oksanen, H. M., 1 Mar 2022, In: *Journal of Chromatography*. B. 1192, 9 p., 123140.

Cold-active *Shewanella glacialimarina* TZS-4T nov. features a temperature-dependent fatty acid profile and putative sialic acid metabolism

Qasim, M. S., Lampi, M., Heinonen, M-M. K., Garrido-Zabala, B., Bamford, D., Käkelä, R., Roine, E. & Sarin, P., 1 Oct 2021, In: *Frontiers in Microbiology*. 12, 13 p., 737641.

Ice nucleation by viruses and their potential for cloud glaciation

Adams, M. P., Atanasova, N. S., Sofieva, S., Ravantti, J., Heikkilä, A., Brasseur, Z., Duplissy, J., Bamford, D. H. & Murray, B. J., 28 Jul 2021, In: *Biogeosciences*. 18, 14, p. 4431-4444 14 p.

Novel haloarchaeal viruses from Lake Retba infecting *Haloferax* and *Halorubrum* species

Mizuno, C. M., Prajapati, B., Lucas-Staat, S., Sime-Ngando, T., Forterre, P., Bamford, D. H., Prangishvili, D., Krupovic, M. & Oksanen, H. M., Jun 2019, In: *Environmental Microbiology*. 21, 6, p. 2129-2147 19 p.

Assembly of complex viruses exemplified by a halophilic euryarchaeal virus

De Colibus, L., Roine, E., Walter, T. S., Ilca, S. L., Wang, X., Wang, N., Roseman, A. M., Bamford, D., Huiskonen, J. T. & Stuart, D., 29 Mar 2019, In: *Nature Communications*. 10, 9 p., 1456.

Structural basis for assembly of vertical single β-barrel viruses

Santos-Perez, I., Charro, D., Gil-Carton, D., Azkargorta, M., Elortza, F., Bamford, D. H., Oksanen, H. M. & Abrescia, N. G. A., 12 Mar 2019, In: *Nature Communications*. 10, 9 p., 1184.

The structure of a prokaryotic viral envelope protein expands the landscape of membrane fusion proteins

El Omari, K., Li, S., Kotecha, A., Walter, T. S., Bignon, E., Harlos, K., Somerharju, P., Haas, F. D., Clare, D., Molin, M., Hurtado, F., Li, M., Grimes, J. M., Bamford, D. H., Tischler, N. D., Huiskonen, J. T., Stuart, D. I. & Roine, E., 19 Feb 2019, In: *Nature Communications*. 10, 11 p., 846.

Efficient Inhibition of Avian and Seasonal Influenza A Viruses by a Virus-Specific Dicer-Substrate Small Interfering RNA Swarm in Human Monocyte-Derived Macrophages and Dendritic Cells

Jiang, M., Osterlund, P., Westerius, V., Guo, D., Poranen, M. M., Bamford, D. H. & Julkunen, I., Feb 2019, In: *Journal of Virology*. 93, 4, 21 p., 01916.

Extremely halophilic pleomorphic archaeal virus HRPV9 extends the diversity of pleolipoviruses with integrases

Atanasova, N. S., Demina, T. A., Krishnam Rajan Shanthi, S. N. V., Oksanen, H. M. & Bamford, D. H., Nov 2018, In: *Research in Microbiology*. 169, 9, p. 500-504 5 p.

Asymmetrical flow field-flow fractionation in purification of an enveloped bacteriophage φ 6

Lampi, M., Oksanen, H. M., Meier, F., Moldenhauer, E., Poranen, M. M., Bamford, D. H. & Eskelin, K., 15 Sept 2018, In: *Journal of Chromatography*. B. 1095, p. 251-257 7 p.

Genome Sequence of PM2-Like Phage Cr39582, Induced from a *Pseudoalteromonas* sp. Isolated from the Gut of *Ciona robusta*

Leigh, B., Breitbart, M., Oksanen, H. M., Bamford, D. H. & Dishaw, L., May 2018, In: *Genome Announcements*. 6, 21, 2 p., UNSP e00368-18.

Membrane-containing virus particles exhibit the mechanics of a composite material for genome protection

Azinas, S., Bano, F., Torca, I., Bamford, D. H., Schwartz, G. A., Esnaola, J., Oksanen, H. M., Richter, R. P. & Abrescia, N. G., 28 Apr 2018, In: *Nanoscale*. 10, 16, p. 7769-7779 11 p.

The first known virus isolates from Antarctic sea ice have complex infection patterns

Luhtanen, A-M., Eronen-Rasmus, E. L., Oksanen, H. M., Tison, J-L., Delille, B., Dieckmann, G. S., Rintala, J-M. & Bamford, D. H., Apr 2018, In: *FEMS Microbiology Ecology*. 94, 4, 15 p., 028.

The unexplored diversity of pleolipoviruses: the surprising case of two viruses with identical major structural modules

Atanasova, N. S., Heiniö, C. H., Demina, T. A., Bamford, D. H. & Oksanen, H. M., Mar 2018, In: *Genes*. 9, 3, 18 p., 131.

Towards in cellulo virus crystallography

Duyvesteyn, H. M. E., Ginn, H. M., Pietila, M. K., Wagner, A., Hattne, J., Grimes, J. M., Hirvonen, E., Evans, G., Parsy, M.-L., Sauter, N. K., Brewster, A. S., Huiskonen, J. T., Stuart, D. I., Sutton, G. & Bamford, D. H., 28 Feb 2018, In: *Scientific Reports*. 8, 7 p., 3771.

Taxonomy proposal: One (1) new species, *Pseudoalteromonas virus Cr39582*, in the genus *Corticovirus*, in the family *Corticoviridae*

Leigh, B. A., Breitbart, M., Bamford, D. H., Dishaw, L. J., Adriaenssens, E., Kropinski, A. & Oksanen, H. M., 2018, *ICTV Online: International Committee on Taxonomy of Viruses (ICTV)*. International Committee on Taxonomy of Viruses (ICTV) , p. 2018.123B 2018.123B

The enigmatic archaeal virosphere

Prangishvili, D., Bamford, D. H., Forterre, P., Iranzo, J., Koonin, E. V. & Krupovic, M., Dec 2017, In: *Nature Reviews, Microbiology*. 15, 12, p. 724-739 16 p.

Halophilic viruses with varying biochemical and biophysical properties are amenable to purification with asymmetrical flow field-flow fractionation

Eskelin, K., Lampi, M., Meier, F., Moldenhauer, E., Bamford, D. H. & Oksanen, H. M., Nov 2017, In: *Extremophiles*. 21, 6, p. 1119-1132 14 p.

Nucleic and Amino Acid Sequences Support Structure-Based Viral Classification

Sinclair, R. M., Ravantti, J. J. & Bamford, D. H., Apr 2017, In: *Journal of Virology*. 91, 8, 13 p., 02275.

Membrane-assisted viral DNA ejection

Santos-Perez, I., Oksanen, H. M., Bamford, D. H., Goni, F. M., Reguera, D. & Abrescia, N. G. A., Mar 2017, In: *Biochimica et Biophysica Acta. General Subjects*. 1861, 3, p. 664-672 9 p.

Newly isolated Nodularia phage influences cyanobacterial community dynamics

Coloma, S. E., Dienstbier, A., Bamford, D. H., Sivonen, K., Roine, E. & Hiltunen, T., Jan 2017, In: *Environmental Microbiology*. 19, 1, p. 273-286 14 p.

Regulation of kynurenone biosynthesis during influenza virus infection

Gaelings, L., Soderholm, S., Bugai, A., Fu, Y., Nandania, J., Schepens, B., Lorey, M. B., Tynell, J., Vande Ginste, L., Le Goffic, R., Miller, M. S., Kuisma, M., Marjomaki, V., De Brabander, J., Matikainen, S., Nyman, T. A., Bamford, D. H., Saelens, X., Julkunen, I., Paavilainen, H., & 3 othersHukkanen, V., Velagapudi, V. & Kainov, D. E., Jan 2017, In: *The FEBS Journal*. 284, 2, p. 222-236 15 p.

Single-molecule measurements of viral ssRNA packaging

Hanhijarvi, K. J., Ziedaite, G., Bamford, D. H., Haeggstrom, E. & Poranen, M. M., Jan 2017, In: *RNA*. 23, 1, p. 119-129 11 p.

HCIV-1 and other tailless icosahedral internal membrane-containing viruses of the family Sphaerolipoviridae

Demina, T., Pietilä, M. K., Svirskaitė, J., Ravantti, J. J., Atanasova, N. S., Bamford, D. H. & Oksanen, H. M., 2017, In: *Viruses (Basel)*. 9, 32, 15 p., 32.

ICTV Virus Taxonomy Profile: Pleolipoviridae

Bamford, D. H., Pietilä, M. K., Roine, E. S., Atanasova, N. S., Dienstbier, A., Oksanen, H. M. & ICTV Report Consortium, 2017, In: *Journal of General Virology*. 98, p. 2916–2917

Topical treatment of herpes simplex virus infection with enzymatically created siRNA swarm

Paavilainen, H., Lehtinen, J., Romanovskaya, A., Nygårdas, M., Bamford, D. H., Poranen, M. M. & Hukkanen, V., 2017, In: *Antiviral Therapy*. 22, 7, p. 631-637

Virus-host interplay in high salt environments

Atanasova, N. S., Bamford, D. H. & Oksanen, H. M., Aug 2016, In: Environmental microbiology reports. 8, 4, p. 431-444 14 p.

Temperature and pH dependence of DNA ejection from archaeal lemon-shaped virus His1

Hanhijärvi, K. J., Ziedaitė, G., Haeggström, E. & Bamford, D. H., Jul 2016, In: European Biophysics Journal. 45, 5, p. 435-442 8 p.

Monitoring physiological changes in haloarchaeal cell during virus release

Svirskaitė, J., Oksanen, H. M., Daugelavicius, R. & Bamford, D. H., Mar 2016, In: Viruses (Basel). 8, 3, 15 p.

Buried alive: microbes from ancient halite

Jaakkola, S. T., Ravantti, J. J., Oksanen, H. M. & Bamford, D. H., Feb 2016, In: Trends in Microbiology. 24, 2, p. 148-160 13 p.

Immuno-modulating properties of saliphenylhalamide, SNS-032, obatoclax, and gemcitabine

Soderholm, S., Anastasina, M., Islam, M. M., Tynell, J., Poranen, M. M., Bamford, D. H., Stenman, J., Julkunen, I., Sauliene, I., De Brabander, J. K., Matikainen, S., Nyman, T. A., Saelens, X. & Kainov, D., Feb 2016, In: Antiviral Research. 126, p. 69-80 12 p.

The complete genome of a viable archaeum isolated from 123-million-year-old rock salt

Jaakkola, S. T., Pfeiffer, F., Ravantti, J. J., Guo, Q., Liu, Y., Chen, X., Ma, H., Yang, C., Oksanen, H. M. & Bamford, D. H., Feb 2016, In: Environmental Microbiology. 18, 2, p. 565-579 15 p.

Pleolipoviridae, a newly proposed family comprising archaeal pleomorphic viruses with single-stranded or double-stranded DNA genomes

Pietilä, M. K., Roine, E., Sencilo, A., Bamford, D. H. & Oksanen, H. M., Jan 2016, In: Archives of Virology. 161, 1, p. 249-256 8 p.

Archaeal *Haloarcula californiae* Icosahedral Virus 1 highlights conserved elements in icosahedral membrane-containing DNA viruses from extreme environments

Demina, T., Pietilä, M. K., Svirskaitė, J., Ravantti, J. J., Atanasova, N. S., Bamford, D. H. & Oksanen, H. M., 2016, In: mBio. 7, 4, 12 p., e00699-16.

Asymmetric flow field flow fractionation methods for virus purification

Eskelin, K. J., Lampi, M., Meier, F., Moldenhauer, E., Bamford, D. H. & Oksanen, H. M., 2016, In: Journal of Chromatography. A. 1469, p. 108-119

Inhibition of clinical pathogenic herpes simplex virus 1 strains with enzymatically created siRNA pools

Paavilainen, H., Lehtinen, J., Romanovskaya, A., Nygårdas, M., Bamford, D. H., Poranen, M. M. & Hukkanen, V., 2016, In: Journal of Medical Virology. 88, 12, p. 2196-2205

K2 killer toxin-induced physiological changes in the yeast *Saccharomyces cerevisiae*

Orentaite, I., Poranen, M. M., Oksanen, H. M., Daugelavicius, R. & Bamford, D. H., 2016, In: FEMS Yeast Research. 16, 2 , 8 p.

Taxonomy proposal: Create eight new species and three new genera to be assigned in a new family Pleolipoviridae.

Pietilä, M. K., Roine, E. S., Sencilo, A., Oksanen, H. M. & Bamford, D. H., 2016, *ICTV Online: International Committee on Taxonomy of Viruses (ICTV) Database*. 2015.042a-oB

Taxonomy proposal: One (1) new species in the genus Alphasphaerolipovirus, family Sphaerolipoviridae.

Demina, T., Pietilä, M. K., Svirskaitė, J., Ravantti, J. J., Atanasova, N. S., Bamford, D. H. & Oksanen, H. M., 2016, *ICTV Online: International Committee on Taxonomy of Viruses (ICTV)*. International Committee on Taxonomy of Viruses (ICTV) , p. 2016.063aB 2016.063aB

Vesicle-like virion of *Haloarcula hispanica* pleomorphic virus 3 preserves high infectivity in saturated salt

Demina, T. A., Atanasova, N. S., Pietilä, M. K., Oksanen, H. M. & Bamford, D. H., 2016, In: *Virology*. 499, p. 40-51 12 p.

Haloarchaeal virus morphotypes

Atanasova, N. S., Bamford, D. H. & Oksanen, H. M., Nov 2015, In: *Biochimie*. 118, p. 333-343 11 p.

Insight into the assembly of viruses with vertical single beta-barrel major capsid proteins

Gil-Carton, D., Jaakkola, S. T., Charro, D., Peralta, B., Castano-Diez, D., Oksanen, H. M., Bamford, D. H. & Abrescia, N. G. A., 6 Oct 2015, In: *Structure*. 23, 10, p. 1866-1877 12 p.

Cold-active bacteriophages from the Baltic Sea ice have diverse genomes and virus-host interactions.

Sencilo, A., Luhtanen, A.-M., Saarijärvi, M., Bamford, D. & Roine, E., Oct 2015, In: *Environmental Microbiology*. 17, 10, p. 3628-3641 14 p.

Innate responses to small interfering RNA pools inhibiting herpes simplex virus infection in astrocytoid and epithelial cells

Paavilainen, H., Romanovskaya, A., Nygårdas, M., Bamford, D. H., Poranen, M. M. & Hukkanen, V., May 2015, In: *Innate Immunity*. 21, 4, p. 349-357 9 p.

Salaisuus on muodossa

Matti, M. & Bamford, D., 6 Mar 2015, In: *Helsingin Sanomat*. B12

Lemon-shaped halo archaeal virus His1 with uniform tail but variable capsid structure

Hong, C., Pietilä, M. K., Fu, C. J., Schmid, M. F., Bamford, D. H. & Chiu, W., 24 Feb 2015, In: *Proceedings of the National Academy of Sciences of the United States of America*. 112, 8, p. 2449-2454 6 p.

MAP kinase p38 alpha regulates type III interferon (IFN-λ1) gene expression in human monocyte-derived dendritic cells in response to RNA stimulation

Jiang, M., Österlund, P., Fagerlund, R., Rios, D. N., Hoffmann, A., Poranen, M. M., Bamford, D. H. & Julkunen, I., Feb 2015, In: *Journal of Leukocyte Biology*. 97, 2, p. 307-320 14 p.

Archaeal viruses multiply: temporal screening in a solar saltern

Atanasova, N. S., Demina, T. A., Buivydas, A., Bamford, D. H. & Oksanen, H. M., 2015, In: *Viruses (Basel)*. 7, 4, p. 1902-1926 25 p.

Comparison of lipid-containing bacterial and archaeal viruses

Atanasova, N., Sencilo, A., Pietilä, M. K., Roine, E., Oksanen, H. & Bamford, D., 2015, In: *Advances in Virus Research*. 92, p. 1-61

Efficient double-stranded RNA production methods for utilization in plant virus control

Voloudakis, A. E., Holeva, M. C., Sarin, L. P., Bamford, D., Vargas, M., Poranen, M. & Tenllado, F., 2015, *Plant Virology Protocols: New Approaches to Detect Viruses and Host Responses*. Uyeda, I. & Masuta, C. (eds.). USA: Humana press, Vol. 1236. p. 255-274 20 p. (Methods in Molecular Biology).

Elongation-competent pauses govern the fidelity of a viral RNA-dependent RNA polymerase

Dulin, D., Vilfan, I. D., Berghuis, B. A., Hage, S., Bamford, D., Poranen, M., Depken, M. & Dekker, N. H., 2015, In: *Cell Reports*. 10, 6, p. 983-992 11 p.

Haloviruses of archaea, bacteria, and eukaryotes

Atanasova, N., Oksanen, H. & Bamford, D., 2015, In: *Current Opinion in Microbiology*. 25, p. 40-48 9 p.

Identification and characterization of SNJ2, the first temperate pleolipovirus integrating into the genome of the SNJ1-lysogenic archaeal strain

Liu, Y., Wang, J., Liu, Y., Wang, Y., Zhang, Z., Oksanen, H. M., Bamford, D. H. & Chen, X., 2015, In: *Molecular Microbiology*. 98, 6, p. 1002-1020 19 p.

Sulfolobus spindle-shaped virus 1 contains glycosylated capsid proteins, a cellular chromatin protein, and host-derived lipids

Quemin, E. R. J., Pietilä, M. K., Oksanen, H. M., Forterre, P., Rijpstra, W. I. C., Schouten, S., Bamford, D. H., Prangishvili, D. & Krupovic, M., 2015, In: *Journal of Virology*. 89, 22, p. 11681-11691 11 p.

Membrane-containing bacteriophages

Poranen, M., Bamford, D. & Oksanen, H., 2015, *Encyclopedia of Life Sciences (eLS)*. John Wiley & Sons Ltd. , p. 1-11

Ratification vote on taxonomic proposals to the International Committee on Taxonomy of Viruses (2015)

Adams, M. J., Lefkowitz, E. J., King, A. M. Q., Bamford, D. H., Breitbart, M., Davison, A. J., Ghabrial, S. A., Gorbalenya, A. E., Knowles, N. J., Krell, P., Lavigne, R., Prangishvili, D., Sanfacon, H., Siddell, S. G., Simmonds, P. & Carstens, E. B., 2015, In: *Archives of Virology*. 160, 7, p. 1837-1850 14 p.

Archaeal viruses and bacteriophages: comparisons and contrasts

Pietila, M. K., Demina, T. A., Atanasova, N. S., Oksanen, H. M. & Bamford, D. H., Jun 2014, In: *Trends in Microbiology*. 22, 6, p. 334-344 11 p.

Conservation of major and minor jelly-roll capsid proteins in Polinton (Maverick) transposons suggests that they are bona fide viruses

Krupovic, M., Bamford, D. H. & Koonin, E. V., 29 Apr 2014, In: *Biology Direct*. 9, 7 p., 6.

Optical tweezers reveal force plateau and internal friction in PEG-induced DNA condensation

Ojala, H., Ziedaite, G., Wallin, A. E., Bamford, D. H. & Haeggström, E., Mar 2014, In: *European Biophysics Journal*. 43, 2-3, p. 71-79 9 p.

Unification of the Globally Distributed Spindle-Shaped Viruses of the Archaea

Krupovic, M., Quemin, E. R. J., Bamford, D. H., Forterre, P. & Prangishvili, D., Feb 2014, In: *Journal of Virology*. 88, 4, p. 2354-2358 5 p.

A Structural Model of the Genome Packaging Process in a Membrane-Containing Double Stranded DNA Virus

Hong, C., Oksanen, H. M., Liu, X., Jakana, J., Bamford, D. H. & Chiu, W., 2014, In: *PLoS Biology*. 12, 12, 14 p.

Electrostatic interactions drive the self-assembly and the transcription activity of the *Pseudomonas* phage phi6 procapsid

Sun, X., Bamford, D. & Poranen, M., 2014, In: *Journal of Virology*. 88, 12, p. 7112-7116 5 p.

Halophilic archaea cultivated from surface sterilized middle-late eocene rock salt are polyploid

Jaakkola, S. T., Zerulla, K., Guo, Q., Liu, Y., Ma, H., Yang, C., Bamford, D. H., Chen, X., Soppa, J. & Oksanen, H. M., 2014, In: *PLoS One*. 9, 10, 9 p., 110533.

Seeing the portal in membrane-containing bacteriophage PRD1 by cryo-EM

Hong, C., Liu, X., Oksanen, H. M., Jakana, J., Bamford, D. H. & Chiu, W., 2014, In: *Microscopy and Microanalysis*. 20, Suppl 3, p. 1250-1251 2 p.

Those magnificent greasy phages: a tribute to research collaboration

Bamford, D., 2014, *Life in our phage world: a centennial field guide to the Earth's most diverse inhabitants*. 1 ed. Wholen, San Diego, CA, p. 6-45 - 6-56

Tracking in atomic detail the functional specializations in viral RecA helicases that occur during evolution

El Omari, K., Meier, C., Kainov, D., Sutton, G., Grimes, J. M., Poranen, M. M., Bamford, D. H., Tuma, R., Stuart, D. I. & Mancini, E. J., Nov 2013, In: *Nucleic Acids Research*. 41, 20, p. 9396-9410 15 p.

Automatic comparison and classification of protein structures

Ravantti, J., Bamford, D. & Stuart, D. I., Jul 2013, In: *Journal of Structural Biology*. 183, 1, p. 47-56 10 p.

Snapshot of haloarchaeal tailed virus genomes

Sencilo, A., Jacobs-Sera, D., Russell, D. A., Ko, C-C., Bowman, C. A., Atanasova, N., Österlund, E., Oksanen, H., Bamford, D., Hatfull, G. F., Roine, E. & Hendrix, R. W., May 2013, In: RNA Biology. 10, p. 803-816 14 p.

High-throughput purification of double-stranded RNA molecules using convective interaction media monolithic anion exchange columns

Romanovskaya, A., Sarin, L. P., Bamford, D. & Poranen, M., 31 Jan 2013, In: Journal of Chromatography. A. 1278, p. 54-60 7 p.

Clinical isolates of *Pseudomonas aeruginosa* from superficial skin infections have different physiological patterns

Buvydas, A., Pasanen, T., Sencilo, A., Daugelavicius, R., Vaara, M. & Bamford, D. H., 2013, In: FEMS Microbiology Letters. 343, 2, p. 183-189 7 p.

DNA ejection from an archaeal virus-a single-molecule approach

Hanhijärvi, K., Ziedaite, G., Pietilä, M. K., Haeggström, E. & Bamford, D., 2013, In: Biophysical Journal. 104, 10, p. 2264-2272 9 p.

Fields Virology: sub-chapter Tectiviridae and Corticoviridae

Bamford, D., 2013, *Fields Virology*. Knipe, D. M. & Howley, P. M. (eds.). 6th ed. Lippincott Williams & Wilkins, Vol. Vol 2. p. 2384-2417

Insights into head-tailed viruses infecting extremely halophilic archaea

Pietilä, M. K., Laurinmäki, P., Russell, D., Ko, C-C., Jacobs-Sera, D., Butcher, S., Bamford, D. & Hendrix, R., 2013, In: Journal of Virology. 87, 6, p. 3248-3260 13 p.

Lipid fingerprints of intact viruses by MALDI-TOF mass spectrometry

Vitale, R., Roine, E., Bamford, D. & Corcelli, A., 2013, In: Biochimica and Biophysica Acta. Molecular and Cell Biology of Lipids. 1831, 4, p. 872-879 8 p.

Mechanism of membranous tunnelling nanotube formation in viral genome delivery

Peralta, B., Gil-Carton, D., Castano-Diez, D., Bertin, A., Boulogne, C., Oksanen, H., Bamford, D. & Abrescia, N. G. A., 2013, In: PLoS Biology. 11, 9, 15 p., e1001667.

Modified coat protein forms the flexible spindle-shaped virion of haloarchaeal virus His1

Pietilä, M. K., Atanasova, N. S., Oksanen, H. M. & Bamford, D. H., 2013, In: Environmental Microbiology. 15, 6, p. 1674-1686 13 p.

Plate tectonics of virus shell assembly and reorganization in phage phi8, a distant relative of mammalian reoviruses
El Omari, K., Sutton, G., Ravanti, J. J., Zhang, H., Walter, T. S., Grimes, J. M., Bamford, D. H., Stuart, D. I. & Mancini, E. J., 2013, In: Structure. 21, 8, p. 1384-1395 12 p.

Rescue of maturation off-pathway products in the assembly of pseudomonas phage φ6

Sun, X., Pirttimaa, M., Bamford, D. & Poranen, M., 2013, In: Journal of Virology. 87, 24, p. 13279-13286 8 p.

Structure of a VP1-VP3 complex suggests how birnaviruses package the VP1 polymerase

Bahar, M. W., Sarin, L. P., Graham, S. C., Pang, J., Bamford, D. H., Stuart, D. I. & Grimes, J. M., 2013, In: Journal of Virology. 87, 6, p. 3229-3236 8 p.

Structure of the archaeal head-tailed virus HSTV-1 completes the HK97 fold story

Pietilä, M. K., Laurinmäki, P., Russell, D., Ko, C-C., Jacobs-Sera, D., Hendrix, R., Bamford, D. & Butcher, S., 2013, In: Proceedings of the National Academy of Sciences of the United States of America. 110, 26, p. 10604-10609 6 p.

Enzymatically produced pools of canonical and dicer-substrate siRNA molecules display comparable gene silencing and antiviral activities against herpes simplex virus

Romanovskaya, A., Paavilainen, H., Nygårdas, M., Bamford, D., Hukkanen, V. & Poranen, M., Nov 2012, In: PLoS One. 7 , 11, p. e51019 9 p.

The C-terminal priming domain is strongly associated with the main body of bacteriophage phi6 RNA-dependent RNA polymerase

Sarin, L. P., Wright, S., Chen, Q., Degerth, L. H., Stuart, D. I., Grimes, J. M., Bamford, D. H. & Poranen, M. M., 10 Oct 2012, In: Virology. 432, 1, p. 184-193 10 p.

Assembly of large icosahedral double-stranded RNA viruses

Poranen, M. & Bamford, D., 2012, In: Advances in Experimental Medicine and Biology. 726, 3, p. 379-402 24 p.

Bacteriophage phi6 nucleocapsid surface protein 8 interacts with virus-specific membrane vesicles containing major envelope protein 9

Sarin, L. P., Hirvonen, J. J., Laurinmaki, P., Butcher, S. J., Bamford, D. H. & Poranen, M. M., 2012, In: Journal of Virology. 86, 9, p. 5376-5379 4 p.

Closely related archaeal Haloarcula hispanica icosahedral viruses HHIV-2 and SH1 have nonhomologous genes encoding host recognition functions

Jaakkola, S. T., Penttinen, R. K., Vilen, S., Jalasvuori, M., Rönnholm, G., Bamford, J. K. H., Bamford, D. & Oksanen, H., 2012, In: Journal of Virology. 86, 9, p. 4734-4742 10 p.

Diversity in prokaryotic glycosylation: an archaeal-derived N-linked glycan contains legionaminic acid.

Kandiba, L., Aitio, O. M. A., Helin, J., Guan, Z., Permi, P., Bamford, D., Eichler, J. & Roine, E., 2012, In: Molecular Microbiology. 84, 3, p. 578-593 16 p.

Family Cystoviridae

Bamford, D. & Poranen, M., 2012, *Virus Taxonomy: Ninth Report of the International Committee on Taxonomy of Viruses*. King, A. M. Q., Adams, M. J., Carstens, E. B. & Lefkowitz, E. J. (eds.). Oxford: Elsevier Scientific Publ. Co, p. 515-518

Family Tectiviridae

Oksanen, H. & Bamford, D., 2012, *Virus Taxonomy: Ninth Report of the International Committee on Taxonomy of Viruses*. King, A. M. Q., Adams, M. J., Carstens, E. B. & Lefkowitz, E. J. (eds.). Oxford: Elsevier Scientific Publ. Co, p. 317-322

Global network of specific virus-host interactions in hypersaline environments.

Atanasova, N., Roine, E., Oren, A., Bamford, D. & Oksanen, H., 2012, In: Environmental Microbiology. 14, 2, p. 426-440 15 p.

Lipids of archaeal viruses.

Roine, E. & Bamford, D., 2012, In: Archaea. 2012, 384919, 8 p.

Monolithic ion exchange chromatographic methods for virus purification

Oksanen, H., Domanska, A. & Bamford, D., 2012, In: Virology. 434, 2, p. 271-277 7 p.

Noncatalytic Ions Direct the RNA-Dependent RNA Polymerase of Bacterial Double-Stranded RNA Virus φ6 from De Novo Initiation to Elongation

Wright, S., Poranen, M., Bamford, D., Stuart, D. I. & Grimes, J. M., 2012, In: Journal of Virology. 86, 5, p. 2837-2849 13 p.

Probing, by self-assembly, the number of potential binding sites for minor protein subunits in the procapsid of double-stranded RNA bacteriophage phi6

Sun, X., Bamford, D. & Poranen, M., 2012, In: Journal of Virology. 86, 22, p. 12208-12216 9 p.

Snapshot of virus evolution in hypersaline environments from the characterization of a membrane-containing Salisaeta icosahedral phage 1

Aalto, A. P., Bitto, D., Ravantti, J., Bamford, D., Huisken, J. T. & Oksanen, H., 2012, In: Proceedings of the National Academy of Sciences of the United States of America. 109, 18, p. 7079-7084 6 p.

Structure unifies the viral universe

Abrescia, N. G. A., Bamford, D., Grimes, J. M. & Stuart, D. I., 2012, In: Annual Review of Biochemistry. 81, p. 795-822 31 p.

Temperate membrane-containing halophilic archaeal virus SNJ1 has a circular dsDNA genome identical to that of plasmid pH205

Zhang, Z., Liu, Y., Wang, S., Yang, D., Cheng, Y., Hu, J., Chen, J., Mei, Y., Shen, P., Bamford, D. & Chen, X., 2012, In: Virology. 434, 2, p. 233-241 9 p.

Virion architecture unifies globally distributed pleolipoviruses infecting halophilic archaea

Pietilä, M. K., Atanasova, N., Manole, V., Liljeroos, L., Butcher, S., Oksanen, H. & Bamford, D., 2012, In: Journal of Virology. 86, 9, p. 5067-5079 13 p.

Virus universe: Can it be constructed from a limited number of viral architectures

Oksanen, H., Pietilä, M. K., Sencio, A., Atanasova, N., Roine, E. & Bamford, D., 2012, *Viruses: Essential Agents of Life*. Witzany, G. (ed.). Dordrecht: Springer Science+Business Media, p. 83-105 23 p.

Cystovirus, Cystoviridae

Poranen, M. & Bamford, D., 2011, *The Springer Index of Viruses*. Tidona, C. & Darai, G. (eds.). 2nd Edition ed. Springer Science+Business Media, Vol. Part 22. p. 431-437 7 p.

Double-stranded DNA viruses: 20 families and only five different architectural principles for virion assembly

Krupovic, M. & Bamford, D., 2011, In: Current opinion in virology. 1, 2, p. 118-124 7 p.

Generation of dsRNAs Targeting VP1 and VP3 Gene Regions of Coxsackievirus B1 Utilizing Bacteriophage phi 6 Polymerase Complex

Petrov, N. M., Bamford, D. H., Vassileva-Pencheva, R. & Galabov, A. S., 2011, In: Antiviral Research. 90, 2, p. A62 1 p.

Genomics of bacterial and archaeal viruses: dynamics within the prokaryotic virosphere

Krupovic, M., Prangishvili, D., Hendrix, R. W. & Bamford, D., 2011, In: Microbiology and Molecular Biology Reviews. 75, 4 , p. 610-635 26 p.

Innate Immune Responses in Human Monocyte-Derived Dendritic Cells Are Highly Dependent on the Size and the 5' Phosphorylation of RNA Molecules

Jiang, M., Osterlund, P., Sarin, L. P., Poranen, M. M., Bamford, D. H., Guo, D. & Julkunen, I., 2011, In: Online Journal of Immunology. 187, 4, p. 1713-1721 9 p.

Protein conservation in virus evolution

Krupovic, M. & Bamford, D., 2011, *Encyclopedia of Life Sciences*. John Wiley & Sons Ltd. , p. 1-10 10 p.

Revealing Virus-Host Interplay

Krupovic, M. & Bamford, D. H., 2011, In: Science. 333, 6038, p. 45-46 2 p.

Tectivirus, Tectiviridae

Bamford, D. & Ziedaitė, G., 2011, *The Springer Index of Viruses*. Tidona, C. & Darai, G. (eds.). 2nd Edition ed. Springer Science+Business Media, Vol. Part 84. p. 1841-1846 7 p.

The N-Terminus of the RNA Polymerase from Infectious Pancreatic Necrosis Virus Is the Determinant of Genome Attachment

Graham, S. C., Sarin, L. P., Bahar, M. W., Myers, R. A., Stuart, D. I., Bamford, D. H. & Grimes, J. M., 2011, In: PLoS Pathogens. 7, 6, p. e1002085 11 p.

The use of low-resolution phasing followed by phase extension from 7.6 to 2.5 Å resolution with noncrystallographic symmetry to solve the structure of a bacteriophage capsid protein

Abrescia, N. G. A., Grimes, J. M., Oksanen, H., Bamford, J. K. H., Bamford, D. & Stuart, D. I., 2011, In: *Acta Crystallographica. Section D: Biological Crystallography*. D67, p. 228-232 5 p.

Assessment of the activity of RND-type multidrug efflux pumps in *Pseudomonas aeruginosa* using tetraphenylphosphonium ions

Daugelavicius, R., Buivydas, A., Sencilo, A. & Bamford, D. H., 2010, In: *International Journal of Antimicrobial Agents*. 36, 3 , p. 234-238 5 p.

Bacteriophages: Lipid-containing

Oksanen, H., Poranen, M. & Bamford, D., 2010, *Encyclopedia of Life Sciences (ELS)*. Chichester: John Wiley & Sons Ltd. , 11 p.

Calcium ion-dependent entry of the membrane-containing bacteriophage PM2 into its *Pseudoalteromonas* host

Cvirkaitė-Krupovič, V., Krupovič, M., Daugelavicius, R. & Bamford, D. H., 2010, In: *Virology*. 405, 1, p. 120-128 9 p.

Comparative Analysis of the Mosaic Genomes of Tailed Archaeal Viruses and Proviruses Suggests Common Themes for Viron Architecture and Assembly with Tailed Viruses of Bacteria

Krupovič, M., Forterre, P. & Bamford, D. H., 2010, In: *Journal of Molecular Biology*. 397, 1, p. 144-160 17 p.

In Vitro Activities of the Multifunctional RNA Silencing Polymerase QDE-1 of *Neurospora crassa*

Aalto, A. P., Poranen, M. M., Grimes, J. M., Stuart, D. I. & Bamford, D. H., 2010, In: *Journal of Biological Chemistry*. 285, 38, p. 29367-29374 8 p.

New, Closely Related Haloarchaeal Viral Elements with Different Nucleic Acid Types

Roine, E., Kukkaro, P., Paulin, L., Laurinavicius, S., Domanska, A., Somerharju, P. & Bamford, D. H., 2010, In: *Journal of Virology*. 84, 7, p. 3682-3689 8 p.

Order to the Viral Universe

Krupovič, M. & Bamford, D. H., 2010, In: *Journal of Virology*. 84, 24, p. 12476-12479 4 p.

Phospholipids act as secondary receptor during the entry of the enveloped, double-stranded RNA bacteriophage phi 6

Cvirkaitė-Krupovič, V., Poranen, M. M. & Bamford, D. H., 2010, In: *Journal of General Virology*. 91, 8, p. 2116-2120 5 p.

Protein A33 responsible for antibody-resistant spread of *Vaccinia* virus is homologous to C-type lectin-like proteins

Krupovič, M., Cvirkaitė-Krupovič, V. & Bamford, D. H., 2010, In: *Virus Research*. 151, 1, p. 97-101 5 p.

The DNA/RNA-Dependent RNA Polymerase QDE-1 Generates Aberrant RNA and dsRNA for RNAi in a Process Requiring Replication Protein A and a DNA Helicase

Lee, H-C., Aalto, A. P., Yang, Q., Chang, S-S., Huang, G., Fisher, D., Cha, J., Poranen, M. M., Bamford, D. H. & Liu, Y., 2010, In: *PLoS Biology*. 8, 10, p. e1000496 11 p.

The Evolutionary History of Archaeal MCM Helicases: A Case Study of Vertical Evolution Combined with Hitchhiking of Mobile Genetic Elements

Krupovič, M., Gribaldo, S., Bamford, D. H. & Forterre, P., 2010, In: *Molecular Biology and Evolution*. 27, 12, p. 2716-2732 17 p.

The single-stranded DNA genome of novel archaeal virus Halorubrum pleomorphic virus 1 is enclosed in the envelope decorated with glycoprotein spikes.

Pietilä, M. K., Laurinavicius, S., Sund, J., Roine, E. & Bamford, D. H., 2010, In: *Journal of Virology*. 84, 2, p. 788-798 11 p.

Virusten ominaisuudet, rakenne ja luokittelu

Bamford, D., Hyypia, T. & Saksela, K., 2010, *Mikrobiologia*. Huovinen, P., Hedman, K., Heikkilä, T., Järvinen, A., Meri, S. & Vaara, M. (eds.). Kustannus Oy Duodecim, p. 449-459 11 p.

What Does it Take to Make a Virus: The Concept of the Viral "Self"

Abrescia, NGA., Grimes, JM., Fry, EE., Ravantti, J., Bamford, D. & Stuart, DI., 2010, *Emerging Topics in Physical Virology*. Stockley, P. G. & Twarock, R. (eds.). World Scientific, p. 35-38 4 p.

An ssDNA virus infecting archaea: a new lineage of viruses with a membrane envelope

Pietilä, M. K., Roine, E., Paulin, L., Kalkkinen, N. & Bamford, D. H., 2009, In: *Molecular Microbiology*. 72, 2, p. 307-319 13 p.

Does the evolution of viral polymerases reflect the origin and evolution of viruses?

Krupovic, M. & Bamford, D. H., 2009, In: *Nature Reviews, Microbiology*. 7, 3, p. 250-250 1 p.

Geminiviruses: a tale of a plasmid becoming a virus

Krupovic, M., Ravantti, J. J. & Bamford, D. H., 2009, In: *BMC Evolutionary Biology*. 9, 112, 11 p.

High-resolution optical tweezers for investigating DNA-binding/translocating molecular motors

Wallin, A. E., Ojala, H., Ziedaite, G., Degerth, L., Bamford, D., Haeggstrom, E., Dholakia, K. & Spalding, G. C., 2009, *Bio II: From Single Molecules to Multiple Motors*. p. 740007 (Proceedings of SPIE; vol. 7400).

Inhibition of coxsackievirus B3 and related enteroviruses by antiviral short interfering RNA pools produced using phi6 RNA-dependent RNA polymerase

Nygårdas, M., Vuorinen, T., Aalto, A., Bamford, D. H. & Hukkanen, V., 2009, In: *Journal of General Virology*. 90, 10, p. 2468-2473 6 p.

Insights into the pre-initiation events of bacteriophage phi6 RNA-dependent RNA polymerase: towards the assembly of a productive binary complex

Sarin, L. P., Poranen, M. M., Lehti, N. M., Ravantti, J. J., Koivunen, M. R. L., Aalto, A. P., Van Dijk, A. A., Stuart, D. I., Grimes, J. M. & Bamford, D. H., 2009, In: *Nucleic Acids Research*. 37, 4, p. 1182-1192 11 p.

Purified membrane-containing procapsids of bacteriophage PRD1 package the viral genome

Ziedaite, G., Kivelä, H., Bamford, J. & Bamford, D. H., 2009, In: *Journal of Molecular Biology*. 386, 3, p. 637-647 11 p.

qiRNA is a new type of small interfering RNA induced by DNA damage

Lee, H-C., Chang, S-S., Choudhary, S., Aalto, A. P., Maiti, M., Bamford, D. H. & Liu, Y., 2009, In: *Nature*. 459, p. 274-277 4 p.

Synteettinen elämä

Bamford, D., 2009, *Kaikki evoluutiosta*. Hanski, I., Niiniluoto, I. & Hetemäki, I. (eds.). Gaudeamus, 259 p.

The closest relatives of icosahedral viruses of thermophilic bacteria are among viruses and plasmids of the halophilic archaea

Jalasvuori, M., Jaatinen, S. T., Laurinavicius, S., Ahola-Livarinen, E., Kalkkinen, N., Bamford, D. H. & Bamford, J., 2009, In: *Journal of Virology*. 83, 18, p. 9388-9397 10 p.

Virus-host interactions in environments with a wide range of ionic strengths

Kukkaro, P. & Bamford, D. H., 2009, In: *Environmental microbiology reports*. 1, 1, p. 71-77 7 p.

Identification and functional analysis of the Rz/Rz1-like accessory lysis genes in the membrane-containing bacteriophage PRD1

Krupovic, M., Cvirkaitė-Krupovic, V. & Bamford, D. H., Apr 2008, In: *Molecular Microbiology*. 68, 2, p. 492-503 12 p.

Archaeal proviruses TKV4 and MVV extend the PRD1-adenovirus lineage to the phylum Euryarchaeota
Krupovic, M. & Bamford, D. H., 2008, In: *Virology*. 375, 1, p. 292-300 9 p.

Biochemical and structural characterisation of membrane-containing icosahedral dsDNA bacteriophages infecting thermophilic *Thermus thermophilus*

Jaatinen, S., Happonen, L. J., Laurinmäki, P., Butcher, S. J. & Bamford, D. H., 2008, In: *Virology*. 379, 1, p. 10-19 10 p.

Dissecting the assembly pathway of bacterial dsRNA viruses: Infectious nucleocapsides produced by self-assembly

Poranen, M. M., Tuma, R. & Bamford, D. H., 2008, *Segmented double-stranded RNA viruses: edited by John T. Patton*. Norfolk, UK: Caister Academic Press, p. 115-132 18 p.

Entry of a segmented dsRNA virus into the bacterial cell

Poranen, M. M. & Bamford, D. H., 2008, *Segmented double-stranded RNA viruses: edited by John T. Patton*. Norfolk, UK: Caister Academic Press, p. 215-226 12 p.

Global transcriptional responses of *Pseudomonas aeruginosa* to phage PRR1 infection

Ravantti, J. J., Ruokoranta, T. M., Alapurainen, A. M. & Bamford, D. H., 2008, In: *Journal of Virology*. 82, 5, p. 2324-2329 6 p.

Holin of bacteriophage lambda: structural insights into a membrane lesion

Krupovic, M. & Bamford, D. H., 2008, In: *Molecular Microbiology*. 69, 4, p. 781-783 3 p.

Identification and functional analysis of the Rz/Rz1-like accessory lysis genes in the mambrane-containing bacteriophage PRD1

Krupovic, M., Cvirkaitė-Krupovic, V. & Bamford, D. H., 2008, In: *Molecular Microbiology*. 68, 2, p. 492-503 12 p.

Insights into virus evolution and membrane biogenesis from the structure of the marine lipid-containing Bacteriophage PM2

Abrescia, N. G. A., Grimes, J. M., Kivelä, H. M., Assenberg, R., Sutton, G. C., Butcher, S. J., Bamford, J., Bamford, D. H. & Stuart, D. I., 2008, In: *Molecular Cell*. 31, 5, p. 749-761 13 p.

Nontemplated terminal nucleotidyltransferase activity of double-stranded RNA bacteriophage phi6 RNA-dependent RNA polymerase

Poranen, M., Koivunen, M. R. L. & Bamford, D. H., 2008, In: *Journal of Virology*. 82, 18, p. 9254-9264 11 p.

Reinitiated viral RNA-dependent RNA polymerase resumes replication at a reduced rate

Vilfan, I. D., Candelli, A., Hage, S., Aalto, A. P., Poranen, M. M., Bamford, D. H. & Dekker, N. H., 2008, In: *Nucleic Acids Research*. 36, 22

Roles of the minor capsid protein P7 in the assembly and replication of double-stranded RNA bacteriophage phi6

Poranen, M. M., Butcher, S. J., Simonov, V. M., Laurinmäki, P. & Bamford, D. H., 2008, In: *Journal of Molecular Biology*. 383, 3, p. 529-538 10 p.

Selenomethionine labeling of large biological macromolecular complexes: probing the structure of marine bacterial virus PM2

Kivelä, H. M., Abrescia, N. G. A., Bamford, J., Grimes, J. M., Stuart, D. I. & Bamford, D. H., 2008, In: *Journal of Structural Biology*. 161, 2, p. 204-210 7 p.

Structural basis of mechanochemical coupling in a hexameric molecular motor

Kainov, D. E., Mancini, E. J., Telenius, J., Lisal, J., Grimes, J. M., Bamford, D. H., Stuart, D. I. & Tuma, R., 2008, In: *Journal of Biological Chemistry*. 283, 6, p. 3607- 3617 11 p.

Structural explanation for the role of Mn²⁺ in the activity of phi6 RNA-dependent RNA polymerase

Poranen, M. M., Salgado, P. S., Koivunen, M. R. L., Wright, S., Bamford, D. H., Stuart, D. I. & Grimes, J. M., 2008, In: Nucleic Acids Research. 36, 20, p. 6633-6644 12 p.

Structure and host-cell interaction of SH1, a membrane-containing, halophilic euryarchaeal virus

Jäälinja, H. T., Roine, E., Laurinmäki, P., Kivelä, H. M., Bamford, D. H. & Butcher, S. J., 2008, In: Proceedings of the National Academy of Sciences of the United States of America. 105, 23, p. 8008-8013 6 p.

Structure-function insights into the RNA-dependent RNA polymerase of the dsRNA bacteriophage 6

Koivunen, M. R. L., Sarin, L. P. & Bamford, D. H., 2008, *Segmented double-stranded RNA viruses: edited by John T. Patton*. Norfolk, UK: Caister Academic Press, p. 239-257 19 p.

Virus evolution: how far does the double β-barrel viral lineage extend?

Krupovic, M. & Bamford, D. H., 2008, In: Nature Reviews, Microbiology. 6, 12, p. 941-948 8 p.

A novel lysis system in PM2: a lipid-containing marine double-stranded DNA bacteriophage

Krupovic, M., Daugelavicius, R. & Bamford, D. H., 2007, In: Molecular Microbiology. 64, 6, p. 1635-1648 14 p.

Bacteria, phages and septicemia

Gaidelyte, A., Vaara, M. & Bamford, D. H., 2007, In: PLoS One. 2, 11, p. e1145 5 p.

Efficient DNA packaging of bacteriophage PRD1 requires the unique vertex protein P6

Karhu, N. J., Ziedaite, G., Bamford, D. H. & Bamford, J. K. H., 2007, In: Journal of Virology. 81, 6, p. 2970-2979 10 p.

Large-scale production of dsRNA and siRNA pools for RNA interference utilizing bacteriophage phi6 RNA-dependent RNA polymerase

Aalto, A., Sarin, L. P., Van Dijk, A. A., Saarma, M., Poranen, M. M., Arumäe, U. & Bamford, D. H., 2007, In: RNA. 13, 3, p. 422-429 8 p.

On-line monitoring of changes in host cell physiology during the one-step growth cycle of Bacillus phage Bam35

Daugelavicius, R., Gaidelyte, A., Cvirkaite-Krupovic, V. & Bamford, D. H., 2007, In: Journal of Microbiological Methods. 69, 1, p. 175-179 5 p.

Polymyxin B induces lysis of marine pseudoalteromonads

Krupovic, M., Daugelavicius, R. & Bamford, D. H., 2007, In: Antimicrobial Agents and Chemotherapy. 51, 11, p. 3908-3914 7 p.

Putative prophages related to lytic tailless marine dsDNA phage PM2 are widespread in the genomes of aquatic bacteria

Krupovic, M. & Bamford, D. H., 2007, In: BMC Genomics. 8, 236, 9 p.

Transbilayer distribution of phospholipids in bacteriophage membranes

Laurinavicius, S., Bamford, D. & Somerharju, P., 2007, In: Biochimica et Biophysica Acta. Biomembranes. 1768, 10, p. 2568-2577 10 p.

Complete genome sequence of the broad host range single-stranded RNA phage PRR1 places it in the Levivirus genus with characteristics shared with alloleviruses

Ruokoranta, T. M., Grahn, A. M., Ravantti, J. J., Poranen, M. M. & Bamford, D. H., 2006, In: Journal of Virology. 80, 18, p. 9326-9330 5 p.

Genome characterization of lipid-containing marine bacteriophage PM2 by transposon insertion mutagenesis

Krupovic, M., Vilen, H., Bamford, J., Kivelä, H. M., Aalto, J.-M., Savilahti, H. & Bamford, D. H., 2006, In: Journal of Virology. 80, 18, p. 9270-9278 9 p.

Global changes in cellular gene expression during bacteriophage PRD1 infection

Poranen, M. M., Ravanti, J. J., Grahn, A. M., Gupta, R., Auvinen, P. & Bamford, D. H., 2006, In: *Journal of Virology*. 80, 16, p. 8081-8088 8 p.

Lipid-containing bacteriophage PM2, the type-organism of Corticoviridae

Bamford, D. & Bamford, J., 2006, *The Bacteriophages*. Calendar, R. & Abedon, S. (eds.). 2 ed. Oxford University Press, p. 171-174 4 p.

Nucleic acid packaging of RNA viruses

Pirttimaa, M.J. & Bamford, D., 2006, *Encyclopedia of Molecular Cell Biology and Molecular Medicine*. Mayers, RA. (ed.). 2nd ed. Wiley, p. 363-375 13 p.

PRD1: dissecting the genome, structure, and entry

Grahn, A. M., Butcher, S. J., Bamford, J. K. H. & Bamford, D., 2006, *The bacteriophages*. Oxford: Oxford University Press , p. 161-170 10 p.

Quantitative dissociation of archaeal virus SH1 reveals distinct capsid proteins and a lipid core

Kivelä, H. M., Roine, E., Kukkaro, P., Laurinavicius, S., Somerharju, P. & Bamford, D. H., 2006, In: *Virology*. 356, p. 4-11 8 p.

Structure of the bacteriophage phi6 nucleocapsid suggests a mechanism for sequential RNA packaging

Huiskonen, J. T., Haas, F. D., Bubeck, D., Bamford, D. H., Fuller, S. D. & Butcher, S. J., 2006, In: *Structure*. 14, p. 1039-1048 10 p.

The entry mechanism of membrane-containing phage Bam35 infecting *Bacillus thuringiensis*

Gaidelyte, A., Cvirkait-Krupovic, V., Daugelavicius, R., Bamford, J. K. H. & Bamford, D. H., 2006, In: *Journal of Bacteriology*. 188, 16, p. 5925-5934 10 p.

The structure of an RNAi polymerase links RNA silencing and transcription

Salgado, P. S., Koivunen, M. R. L., Makeyev, E. V., Bamford, D. H., Stuart, D. I. & Grimes, J. M., 2006, In: *PLoS Biology*. 4, 12, p. 2274-2281 8 p.

In vitro assembly of bacteriophages: folding, kinetic control and intermediates

Tuma, R., Tsuruta, H., Prevelige, P. E., Kainov, D., Poranen, M. & Bamford, D., 15 Jun 2005, In: *Computational and mathematical methods in medicine*. 6, 2, p. 139-139 1 p.

SH1: A novel, spherical halovirus isolated from an Australian hypersaline lake

Porter, K., Kukkaro, P., Bamford, J. K. H., Bath, C., Kivelä, H. M., Dyall-Smith, ML. & Bamford, D. H., 25 Apr 2005, In: *Virology*. 335, 1, p. 22-33 12 p.

A snapshot of viral evolution from genome analysis of the Tectiviridae family

Saren, A. M., Ravanti, J. J., Benson, S. D., Burnett, R. M., Paulin, L., Bamford, D. H. & Bamford, J. K. H., 2005, In: *Journal of Molecular Biology*. 350, 3, p. 427-440 14 p.

Assembly of double-stranded RNA bacteriophages

Poranen, M. M., Tuma, R. & Bamford, D. H., 2005, In: *Advances in Virus Research*. 64, p. 15-43 29 p.

Back-priming mode of phi6 RNA-dependent RNA polymerase

Laurila, M. R. L., Salgado, P. S., Stuart, D. I., Grimes, J. M. & Bamford, D. H., 2005, In: *Journal of General Virology*. 86, p. 521-526 6 p.

Constituents of SH1, a novel lipid-containing virus infecting the halophilic euryarchaeon *Haloarcula hispanica*

Bamford, D., Ravanti, J., Rönnholm, G., Laurinavicius, S., Kukkaro, P., Dyall-Smith, M., Somerharju, P., Kalkkinen, N. & Bamford, J., 2005, In: *Journal of Virology*. 79, 14, p. 9097-9107 11 p.

Encapsidation of the segmented double-stranded RNA genome of bacteriophage φ6

Poranen, M., Pirttimaa, M. J. & Bamford, D., 2005, *Viral Genome Packaging Machines: Genetics, Structure, and Mechanism*. Catalano, C. (ed.). New York: Kluwer Academic, p. 117-134 18 p.

Gene silencing pathway RNA-dependent RNA polymerase of *Neurospora crassa*: yeast expression and crystallization of selenomethionated QDE-1 protein

Laurila, M. R. L., Salgado, P. S., Makeyev, E. V., Nettelship, J., Stuart, D. I., Grimes, J. M. & Bamford, D. H., 2005, In: *Journal of Structural Biology*. 149, 1, p. 111-115 5 p.

In vitro DNA packaging of PRD1: a common mechanism for internal-membrane viruses

Karhu, N. J., Bamford, D. H. & Bamford, J. K. H., 2005, In: *Journal of Molecular Biology*. 348, p. 617-629 13 p.

Membrane proteins modulate the bilayer curvature in the bacterial virus Bam35

Laurinmäki, P. A., Huiskonen, J. T., Bamford, D. H. & Butcher, S. J., 2005, In: *Structure*. 13, 12, p. 1819-1828 10 p.

Overcoming the false-minima problem in direct methods: structure determination of the packaging enzyme P4 from bacteriophage phi 13

Meier, C., Mancini, E. J., Bamford, D. H., Walsh, M. A., Stuart, D. I. & Grimes, J. M., 2005, In: *Acta Crystallographica. Section D: Biological Crystallography*. 61, p. 1238-1244 7 p.

Penetration of enveloped double-stranded RNA bacteriophages phi13 and phi6 into *Pseudomonas syringae* cells

Daugelavicius, R., Cvirkaitė-Krupovič, V., Gaidelyte, A., Bakiene, E., Gabrenaite-Verkhovskaya, R. & Bamford, D. H., 2005, In: *Journal of Virology*. 79, 8, p. 5017-5026 10 p.

Preliminary crystallographic analysis of the major capsid protein P2 of the lipid-containing bacteriophage PM2

Abrescia, N. G. A., Kivelä, H. M., Grimes, J. M., Bamford, J. K. H., Bamford, D. H. & Stuart, D. I., 2005, In: *Acta crystallographica. Section F: Structural biology and crystallization communications*. 61, p. 762-765 4 p.

SH1 : A novel, spherical halovirus isolated from an Australian hypersaline lake

Porter, K., Kukkaro, P., Bamford, J., Bath, C., Kivelä, H. M., Dyall-Smith, M. L. & Bamford, D. H., 2005, In: *Virology*. 335, p. 22-33 12 p.

The holin protein of bacteriophage PRD1 forms a pore for small-molecule and endolysin translocation

Ziedaite, G., Daugelavicius, R., Bamford, J. K. H. & Bamford, D. H., 2005, In: *Journal of Bacteriology*. 187, 15, p. 5397-5405 9 p.

The linear double-stranded DNA of phage Bam35 enters lysogenic host cells, but the late phage functions are suppressed

Gaidelyte, A., Jaatinen, S. T., Daugelavicius, R., Bamford, J. K. H. & Bamford, D. H., 2005, In: *Journal of Bacteriology*. 187, 10, p. 3521-3527 7 p.

The structure of the bacteriophage PRD1 spike sheds light on the evolution of viral capsid architecture

Merckel, M. C., Huiskonen, J. T., Bamford, D. H., Goldman, A. & Tuma, R., 2005, In: *Molecular Cell*. 18, 2, p. 161-170 10 p.

What does structure tell us about virus evolution?

Bamford, D. H., Grimes, J. M. & Stuart, D. I., 2005, In: *Current Opinion in Structural Biology*. 15, 6, p. 655-663 9 p.

Does common architecture reveal a viral lineage spanning all three domains of life?

Benson, SD., Bamford, JKH., Bamford, DH. & Burnett, RM., 3 Dec 2004, In: *Molecular Cell*. 16, 5, p. 673-685 13 p.

Membrane structure and interactions with protein and DNA in bacteriophage PRD1

Cockburn, JJB., Abrescia, NGA., Grimes, JM., Sutton, GC., Diprose, JM., Benevides, JM., Thomas, GJ., Bamford, JKH., Bamford, DH. & Stuart, DI., 4 Nov 2004, In: *Nature*. 432, 7013, p. 122-125 4 p.

Cloning and sequence analysis of dsRNA segments 5, 6 and 7 of a novel non-group A, B, C adult rotavirus that caused an outbreak of gastroenteritis in China

Yang, H., Makeyev, E. V., Kang, Z., Ji, S., Bamford, D. H. & van Dijk, A. A., Nov 2004, In: *Virus Research.* 106, 1, p. 15-26 12 p.

Integral membrane protein P16 of bacteriophage PRD1 stabilizes the adsorption vertex structure

Jaatinen, ST., Viitanen, SJ., Bamford, DH. & Bamford, JKH., Sept 2004, In: *Journal of Virology.* 78, 18, p. 9790-9797 8 p.

The origin of phospholipids of the enveloped bacteriophage phi6

Laurinavicius, S., Kakela, R., Bamford, DH. & Somerharju, P., 15 Aug 2004, In: *Virology.* 326, 1, p. 182-190 9 p.

Phospholipid molecular species profiles of tectiviruses infecting Gram-negative and Gram-positive hosts

Laurinavicius, S., Kakela, R., Somerharju, P. & Bamford, DH., 1 May 2004, In: *Virology.* 322, 2, p. 328-336 9 p.

Initiation of viral RNA-dependent RNA polymerization

van Dijk, AA., Makeyev, EV. & Bamford, DH., May 2004, In: *Journal of General Virology.* 85, p. 1077-1093 17 p.

Viral molecular machines: replication systems within the inner cores of dsRNA viruses - Introduction

Bamford, DH. & Mindich, L., Apr 2004, In: *Virus Research.* 101, 1, p. 1-1 1 p.

Evolutionary potential of an RNA virus

Makeyev, E. V. & Bamford, D. H., Feb 2004, In: *Journal of Virology.* 78, 4, p. 2114-2120 7 p.

Atomic snapshots of an RNA packaging motor reveal conformational changes linking ATP hydrolysis to RNA translocation

Mancini, E. J., Kainov, D. E., Grimes, J. M., Tuma, R., Bamford, D. H. & Stuart, D. I., 2004, In: *Cell.* 118, p. 743-755 13 p.

Crystallization and preliminary X-ray diffraction analysis of bacteriophage phi 12 packaging factor P7

Kainov, D. E., Simonov, V., Bamford, D. H., Tuma, R., Gottlieb, P., Wei, H., Walsh, M. A., Belrhali, H. & Merckel, M. C., 2004, In: *Acta Crystallographica. Section D: Biological Crystallography.* 60, p. 2368-2370 3 p.

Enzymatic mechanism of RNA translocation in double-stranded RNA Bacteriophages

Lisal, J., Kainov, D. E., Bamford, D. H., Thomas, G. J. & Tuma, R., 2004, In: *Journal of Biological Chemistry.* 279, p. 1343-1350 8 p.

Insights into assembly from structural analysis of bacteriophage PRD1

Abrescia, N. G. A., Cockburn, J. J. B., Grimes, J. M., Sutton, G. C., Diprose, J. M., Butcher, S. J., Fuller, S. D., Martin, C. S., Burnett, R. M., Stuart, D. I., Bamford, D. H. & Bamford, J. K. H., 2004, In: *Nature.* 432, p. 68-74 7 p.

Packaging motor from double-stranded RNA bacteriophage phi 12 acts as an obligatory passive conduit during transcription

Kainov, D. E., Lisal, J., Bamford, D. H. & Tuma, R., 2004, In: *Nucleic Acids Research.* 32, p. 3515-3521 7 p.

Penetration of membrane-containing double-stranded-DNA bacteriophage PM2 into *Pseudoalteromonas* hosts

Kivelä, H. M., Daugelavicius, R., Hankkio, R. H., Bamford, J. K. H. & Bamford, D. H., 2004, In: *Journal of Bacteriology.* 186 , p. 5342-5354 13 p.

Production, crystallization and preliminary X-ray crystallographic studies of the bacteriophage phi 12 packaging motor

Mancini, E. J., Kainov, D. E., Wei, H., Gottlieb, P., Tuma, R., Bamford, D. H., Stuart, D. I. & Grimes, J. M., 2004, In: *Acta Crystallographica. Section D: Biological Crystallography.* 60, p. 588-590 3 p.

The PM2 virion has a novel organization with an internal membrane and pentameric receptor binding spikes

Huiskonen, J. T., Kivelä, H. M., Bamford, D. H. & Butcher, S. J., 2004, In: *Nature Structural and Molecular Biology.* 11, p. 850-856 7 p.

The structural basis for RNA specificity and Ca²⁺ inhibition of an RNA-dependent RNA polymerase

Salgado, P. S., Makeyev, E. V., Butcher, S. J., Bamford, D. H., Stuart, D. I. & Grimes, J. M., 2004, In: *Structure*. 12, p. 307-316 10 p.

The *Bacillus thuringiensis* linear double-stranded DNA phage Bam35, which is highly similar to the *Bacillus cereus* linear plasmid pBClin15, has a prophage state

Stromsten, N. J., Benson, S. D., Burnett, R. M., Bamford, D. H. & Bamford, J. K. H., Dec 2003, In: *Journal of Bacteriology*. 185, 23, p. 6985-6989 5 p.

Temperature requirements for initiation of RNA-dependent RNA polymerization

Yang, HY., Gottlieb, P., Wei, H., Bamford, DH. & Makeyev, EV., 30 Sept 2003, In: *Virology*. 314, 2, p. 706-715 10 p.

Comparative analysis of bacterial viruses Bam35, infecting a gram-positive host, and PRD1, infecting gram-negative hosts, demonstrates a viral lineage

Ravantti, J. J., Gaidelyte, A., Bamford, D. H. & Bamford, J. K. H., 1 Sept 2003, In: *Virology*. 313, 2, p. 401-414 14 p.

Identification and mutational analysis of bacteriophage PRD1 holin protein p35

Rydman, P. S. & Bamford, D. H., Jul 2003, In: *Journal of Bacteriology*. 185, 13, p. 3795-3803 9 p.

The tailless icosahedral membrane virus PRD1 localizes the proteins involved in genome packaging and injection at a unique vertex

Gowen, B., Bamford, J. K. H., Bamford, D. H. & Fuller, S. D., Jul 2003, In: *Journal of Virology*. 77, 14, p. 7863-7871 9 p.

Self-organization: making complex infectious viral particles from purified precursors

Bamford, DH., 13 Jun 2003, In: *Philosophical transactions - Royal Society. Mathematical, Physical and engineering sciences*. 361, 1807, p. 1187-1203 17 p.

The unique vertex of bacterial virus PRD1 is connected to the viral internal membrane

Stromsten, NJ., Bamford, DH. & Bamford, JKH., Jun 2003, In: *Journal of Virology*. 77, 11, p. 6314-6321 8 p.

Transcription of bacteriophage PM2 involves phage-encoded regulators of heterologous origin

Mannisto, R. H., Grahn, A. M., Bamford, D. H. & Bamford, J. K. H., Jun 2003, In: *Journal of Bacteriology*. 185, 11, p. 3278-3287 10 p.

Do viruses form lineages across different domains of life?

Bamford, DH., May 2003, In: *Research in Microbiology*. 154, 4, p. 231-236 6 p.

Crystallization of the membrane-containing bacteriophage PRD1 in quartz capillaries by vapour diffusion

Cockburn, J. J. B., Bamford, J. K. H., Grimes, J. M., Bamford, D. H. & Stuart, D. I., Mar 2003, In: *Acta Crystallographica. Section D: Biological Crystallography*. 59, p. 538-540 3 p.

P4 protein of dsRNA bacteriophages is a unidirectional RNA packaging motor

Kainov, DE., Makeyev, EV., Bamford, DH. & Tuma, R., Feb 2003, In: *Biophysical Journal*. 84, 2, p. 362A-362A 1 p.

Conserved intermediates on the assembly pathway of double-stranded RNA bacteriophages

Kainov, D. E., Butcher, S. J., Bamford, D. H. & Tuma, R., 2003, In: *Journal of Molecular Biology*. 328, p. 791-804 14 p.

Order and disorder in crystals of hexameric NTPases from dsRNA bacteriophages

Mancini, E. J., Grimes, J. M., Malby, R., Sutton, G. C., Kainov, D. E., Juuti, J. T., Makeyev, E. V., Tuma, R., Bamford, D. H. & Stuart, D. I., 2003, In: *Acta Crystallographica. Section D: Biological Crystallography*. 59, p. 2337-2341 5 p.

Probing the ability of the coat and vertex protein of the membrane-containing bacteriophage PRD1 to display a meningococcal epitope

Huiskonen, J. T., Laakkonen, L., Toropainen, M., Sarvas, M., Bamford, D. H. & Bamford, J. K. H., 2003, In: *Virology*. 310, 2, p. 267-279 13 p.

RNA packaging device of double-stranded RNA bacteriophages, possibly as simple as hexamer of P4 protein

Kainov, D. E., Pirttimaa, M., Tuma, R., Butcher, S. J., Thomas, G. J., Bamford, D. H. & Makeyev, E. V., 2003, In: *Journal of Biological Chemistry*. 278, 48, p. 48084-48091 8 p.

The receptor binding protein P2 of PRD1, a virus targeting antibiotic-resistant bacteria, has a novel fold suggesting multiple functions

Xu, L., Benson, S. D., Butcher, S. J., Bamford, D. H. & Burnett, R. M., 2003, In: *Structure*. 11, p. 309-322 14 p.

Two distinct mechanisms ensure transcriptional polarity in double-stranded RNA bacteriophages

Yang, H., Makeyev, E. V., Butcher, S. J., Gaidelyte, A. & Bamford, D. H., 2003, In: *Journal of Virology*. 77, 2, p. 1195-1203 9 p.

Cellular RNA-dependent RNA polymerase involved in posttranscriptional gene silencing has two distinct activity modes

Makeyev, E. V. & Bamford, D. H., Dec 2002, In: *Molecular Cell*. 10, 6, p. 1417-1427 11 p.

Sequential model of phage PRD1 DNA delivery: active involvement of the viral membrane

Grahn, A. M., Daugelavicius, R. & Bamford, D. H., Dec 2002, In: *Molecular Microbiology*. 46, 5, p. 1199-1209 11 p.

Characterization of subunit-specific interactions in a double-stranded RNA virus: Raman difference spectroscopy of the phi 6 procapsid

Benevides, J. M., Juuti, J. T., Tuma, R., Bamford, D. H. & Thomas, G. J., 8 Oct 2002, In: *Biochemistry*. 41, 40, p. 11946-11953 8 p.

Diffraction quality crystals of PRD1, a 66-MDa dsDNA virus with an internal membrane

Bamford, J. K. H., Cockburn, J. J. B., Diprose, J., Grimes, J. M., Sutton, G., Stuart, D. I. & Bamford, D. H., Aug 2002, In: *Journal of Structural Biology*. 139, 2, p. 103-112 10 p.

Evolution of viral structure

Bamford, D. H., Burnett, R. M. & Stuart, D. I., Jun 2002, In: *Theoretical Population Biology*. 61, 4, p. 461-470 10 p.

Bacteriophage phi 6 RNA-dependent RNA polymerase - Molecular details of initiating nucleic acid synthesis without primer

Laurila, MRL., Makeyev, EV. & Bamford, DH., 10 May 2002, In: *Journal of Biological Chemistry*. 277, 19, p. 17117-17124 8 p.

The small viral membrane-associated protein P32 is involved in bacteriophage PRD1 DNA entry

Grahn, A. M., Daugelavicius, R. & Bamford, D. H., May 2002, In: *Journal of Virology*. 76, 10, p. 4866-4872 7 p.

Those magnificent molecular machines: logistics in dsRNA virus transcription

Bamford, DH., Apr 2002, In: *EMBO Reports*. 3, 4, p. 317-318 2 p.

In vitro assembly of dsRNA bacteriophage φ8.

Tuma, R., Kainov, D. & Bamford, DH., Jan 2002, In: *Biophysical Journal*. 82, 1, p. 325A-325A 1 p.

The lytic enzyme of bacteriophage PRD1 is associated with the viral membrane

Rydman, P. S. & Bamford, D. H., Jan 2002, In: *Journal of Bacteriology*. 184, 1, p. 104-110 7 p.

The X-ray crystal structure of P3, the major coat protein of the lipid-containing bacteriophage PRD1, at 1.65 angstrom resolution

Benson, S. D., Bamford, J. K. H., Bamford, D. H. & Burnett, R. M., Jan 2002, In: *Acta Crystallographica. Section D: Biological Crystallography*. 58, p. 39-59 21 p.

Bacteriophage PM2 has a protein capsid surrounding a spherical proteinaceous lipid core
Kivelä, H. M., Kalkkinen, N. & Bamford, D. H., 2002, In: *Journal of Virology*. 76, p. 8169-8178 10 p.

Common principles in viral entry

Poranen, M. M., Daugelavicius, R. & Bamford, D. H., 2002, In: *Annual Review of Microbiology*. 56, p. 521-538 18 p.

Menetelmien yhdistäminen paljasti virusten sukulaisuuden
Bamford, D. & Butcher, S., 2002, In: *Kemia - Kemi*. 3, p. 42-43

Minor proteins, mobile arms and membrane-capsid interactions in the bacteriophage PRD1 capsid
San Martin, C., Huiskonen, J. T., Bamford, J. K. H., Butcher, S. J., Fuller, S. D., Bamford, D. H. & Burnett, R. M., 2002, In: *Nature Structural and Molecular Biology*. 9, 10, p. 756-763 8 p.

Nonspecific Nucleoside Triphosphatase P4 of Double-Stranded RNA Bacteriophage f6 Is Required for Single-Stranded RNA Packaging and Transcription

Pirttimaa, M. J., Paatero, A. O., Frilander, M. J. & Bamford, D. H., 2002, In: *Journal of Virology*. 76, 20, p. 10122-10127 6 p.

Phage enzymes digest peptidoglycan to deliver DNA

Rydman, PS. & Bamford, D. H., 2002, In: *ASM news*. 68, p. 330-335

Solution structure of bacteriophage PRD1 vertex complex

Sokolova, A., Malfois, M., Caldentey, J., Svergun, D. I., Koch, M. H. J., Bamford, D. H. & Tuma, R., 7 Dec 2001, In: *Journal of Biological Chemistry*. 276, 49, p. 46187-46195 9 p.

A minor capsid protein P30 is essential for bacteriophage PRD1 capsid assembly

Rydman, P. S., Bamford, J. K. H. & Bamford, D. H., 2 Nov 2001, In: *Journal of Molecular Biology*. 313, 4, p. 785-795 11 p.

Comparison of polymerase subunits from double-stranded RNA bacteriophages

Yang, H. Y., Makeyev, E. V. & Bamford, D. H., Nov 2001, In: *Journal of Virology*. 75, 22, p. 11088-11095 8 p.

Use of lipophilic anions for estimation of biomass and cell viability

Daugelavicius, R., Bakiene, E., Berzinskiene, J. & Bamford, DH., 5 Aug 2001, In: *Biotechnology and Bioengineering* (Print). 71, 3, p. 208-216 9 p.

Primer-independent RNA sequencing with bacteriophage phi 6 RNA polymerase and chain terminators

Makeyev, E. V. & Bamford, D. H., May 2001, In: *RNA*. 7, 5, p. 774-781 8 p.

Macromolecular assemblies: greater than their parts

Bamford, DH., Gilbert, RJC., Grimes, JM. & Stuart, DI., Feb 2001, In: *Current Opinion in Structural Biology*. 11, 1, p. 107-113 7 p.

A mechanism for initiating RNA-dependent RNA polymerization

Butcher, S. J., Grimes, J. M., Makeyev, E. V., Bamford, D. H. & Stuart, D. L., 2001, In: *Nature*. 410, p. 235-240 7 p.

Combined EM/X-ray imaging yields a quasi-atomic model of the adenovirus-related bacteriophage PRD1 and shows key capsid and membrane interactions

San Martin, C., Burnett, R. M., de Haas, F., Heinkel, R., Rutten, T., Fuller, S. D., Butcher, S. J. & Bamford, D. H., 2001, In: *Structure*. 9, p. 917-930 14 p.

Genus Cystovirus (Cystoviridae)

Bamford, D. H., 2001, *The Springer Index of Viruses*. Tidona, CA. & Darai, CD. (eds.).

Genus Tectivirus (Tectiviridae)

Bamford, D. H., 2001, *The Springer Index of Viruses*. Tidona, CA. & Darai, CD. (eds.).

Self-assembly of a viral molecular machine from purified protein and RNA constituents

Poranen, M. M., Paatero, A. O., Tuma, R. & Bamford, D. H., 2001, In: *Molecular Cell*. 7, p. 845-854 10 p.

The polymerase subunit of a dsRNA virus plays a central role in the regulation of viral RNA metabolism

Makeyev, E. V. & Bamford, D. H., 15 Nov 2000, In: *EMBO Journal*. 19, 22, p. 6275-6284 10 p.

Stages of polymyxin B interaction with the Escherichia coli cell envelope

Daugelavicius, R., Bakiene, E. & Bamford, D. H., Nov 2000, In: *Antimicrobial Agents and Chemotherapy*. 44, 11, p. 2969-2978 10 p.

A new mutant class, made by targeted mutagenesis, of phage PRD1 reveals that protein P5 connects the receptor binding protein to the vertex

Bamford, J. K. H. & Bamford, D. H., Sept 2000, In: *Journal of Virology*. 74, 17, p. 7781-7786 6 p.

Assembly of bacteriophage PRD1 spike complex: Role of the multidomain protein P5

Caldentey, J., Tuma, R. & Bamford, D. H., 29 Aug 2000, In: *Biochemistry*. 39, 34, p. 10566-10573 8 p.

Local average intensity-based method for identifying spherical particles in electron micrographs

Kivioja, T., Ravantti, J., Verkhovsky, A., Ukkonen, E. & Bamford, D., Aug 2000, In: *Journal of Structural Biology*. 131, 2, p. 126-134 9 p.

Virus structures: Those magnificent molecular machines

Bamford, DH., 27 Jul 2000, In: *Current Biology*. 10, 15, p. R558-R561 4 p.

Bacteriophage PRD1 DNA entry uses a viral membrane-associated transglycosylase activity

Rydman, P. S. & Bamford, D. H., Jul 2000, In: *Molecular Microbiology*. 37, 2, p. 356-363 8 p.

RNA secondary structures of the bacteriophage phi 6 packaging regions

Pirttimaa, M. J. T. & Bamford, D. H., Jun 2000, In: *RNA*. 6, 6, p. 880-889 10 p.

Components of the RP4 conjugative transfer apparatus form an envelope structure bridging inner and outer membranes of donor cells: Implications for related macromolecule transport systems

Grahn, A. M., Haase, J., Bamford, D. H. & Lanka, E., Mar 2000, In: *Journal of Bacteriology*. 182, 6, p. 1564-1574 11 p.

Replicase activity of purified recombinant protein P2 of double-stranded RNA bacteriophage phi 6

Makeyev, E. V. & Bamford, D. H., 4 Jan 2000, In: *EMBO Journal*. 19, 1, p. 124-133 10 p.

Crystallization and preliminary X-ray analysis of receptor-binding protein P2 of bacteriophage PRD1

Xu, L., Butcher, S. J., Benson, S. D., Bamford, D. H. & Burnett, R. M., 2000, In: *Journal of Structural Biology*. 131, p. 159-163 5 p.

Crystallization and preliminary X-ray crystallographic studies on the bacteriophage Phi 6 RNA-dependent RNA polymerase

Butcher, S. J., Makeyev, E. V., Grimes, J. M., Stuart, D. I. & Bamford, D. H., 2000, In: *Acta Crystallographica. Section D: Biological Crystallography*. 56, p. 1473-1475 3 p.

Family Cystoviridae

Bamford, D. H., 2000, *Virus Taxonomy, Classification and Nomenclature of Viruses*. Regenmortel, M. (ed.). p. 389-393

Family Tectiviridae

Bamford, D. H. & Ackermann, H., 2000, *Virus Taxonomy, Classification and Nomenclature of Viruses*. Regenmortel, M. (ed.). p. 111-116

Structural characterization of virus assembly intermediates

Sokolova, A., Caldentey, J., Malfois, M., Poranen, M. M., Svergun, D. I., Koch, M. H. J., Bamford, D. H. & Tuma, R., 2000, Hamburg: Hamburger Synchrotronstrahlungslabor HASYLAB. 2 p. (HASYLAB Annual Report 2000, Part II.)

A symmetry mismatch at the site of RNA packaging in the polymerase complex of dsRNA bacteriophage phi 6

de Haas, F., Paatero, AO., Mindich, L., Bamford, DH. & Fuller, SD., 26 Nov 1999, In: *Journal of Molecular Biology*. 294, 2, p. 357-372 16 p.

Assembly dynamics of the nucleocapsid shell subunit (P8) of bacteriophage phi 6

Tuma, R., Bamford, J. K. H., Bamford, D. H. . & Thomas, G. J., 9 Nov 1999, In: *Biochemistry*. 38, 45, p. 15025-15033 9 p.

Stable packaging of phage PRD1 DNA requires adsorption protein P2, which binds to the IncP plasmid-encoded conjugative transfer complex

Grahn, AM., Caldentey, J., Bamford, JKH. & Bamford, DH., Nov 1999, In: *Journal of Bacteriology*. 181, 21, p. 6689-6696 8 p.

Viral evolution revealed by bacteriophage PRD1 and human adenovirus coat protein structures

Benson, S. D., Bamford, J. K. H., Bamford, D. H. & Burnett, R. M., 17 Sept 1999, In: *Cell*. 98, 6, p. 825-833 9 p.

A data mining approach for analyzing density maps representing macromolecular structures

Ravantti, J. J. & Bamford, D. H., 1999, In: *Journal of Structural Biology*. 125, p. 216-222 7 p.

Analysis of the multimeric state of proteins by matrix assisted laser desorption/ionization mass spectrometry after cross-linking with glutaraldehyde

Helin, J., Caldentey, J., Kalkkinen, N. & Bamford, DH., 1999, In: *Rapid Communications in Mass Spectrometry*. 13, 3, p. 185-190 6 p.

A novel virus-host cell membrane interaction: Membrane voltage-dependent endocytic-like entry of bacteriophage φ6 nucleocapsid

Poranen, M. M., Daugelavicius, R., Ojala, P. M., Hess, M. W. & Bamford, D. H., 1999, In: *Journal of Cell Biology*. 147, p. 671-681 11 p.

Bacteriophage PHI-6 (Cystoviridae)

Bamford, D. H., 1999, *Encyclopedia of Virology, 2nd Edition*. Webster, R. & Granoff, A. (eds.). p. 1205-1208

Bacteriophage PRD1 contains a labile receptor-binding structure at each vertex

Rydman, P. S., Caldentey, J., Butcher, S. J., Fuller, S. D., Rutten, T. & Bamford, D. H., 1999, In: *Journal of Molecular Biology*. 291, p. 575-587 13 p.

Bacteriophage PRD1 (Tectiviridae)

Bamford, D. H., 1999, *Encyclopedia of Virology, 2nd Edition*. Webster, R. & Granoff, A. (eds.). p. 1210-1212

Bacteriophages: lipid-containing

Bamford, D. H., 1999, *Encyclopedia of Life-Sciences*. Harper, D. (ed.).

Packaging and replication regulation revealed by chimeric genome segments of double-stranded RNA bacteriophage φ6

Poranen, M. M. & Bamford, D. H., 1999, In: *RNA*. 5, p. 446-454 9 p.

Purification and characterization of the assembly factor P17 of the lipid-containing bacteriophage PRD1
Caldentey, J., Hänninen, A-L., Holopainen, J. M., Bamford, J., Kinnunen, P. & Bamford, DH., 1999, In: European Journal of Biochemistry. 260, 2, p. 549-558 10 p.

Purification and protein composition of PM2, the first lipid-containing bacterial virus to be isolated
Kivelä, H. M., Männistö, R. H., Kalkkinen, N. & Bamford, D. H., 1999, In: Virology. 262, p. 364-374 11 p.

Raman spectral studies of nucleic acids series. part LXIX - A novel Raman spectrophotometric method for quantitative measurement of nucleoside triphosphate hydrolysis
Jenkins, RH., Tuma, R., Juuti, JT., Bamford, DH. & Thomas, GJ., 1999, In: Biopolymers. 5, 1, p. 3-8 6 p.

The complete genome sequence of PM2, the first lipid-containing bacterial virus to be isolated
Männistö, R. H., Kivelä, H. M., Paulin, L., Bamford, D. H. & Bamford, J. K. H., 1999, In: Virology. 262, p. 355-363 9 p.

Mutational analysis of the role of nucleoside triphosphatase p4 in the assembly of the RNA polymerase complex of bacteriophage phi 6
Paatero, AO., Mindich, L. & Bamford, DH., Dec 1998, In: Journal of Virology. 72, 12, p. 10058-10065 8 p.

Structure and NTPase activity of the RNA-translocating protein (P4) of bacteriophage phi 6
Juuti, J. T., Bamford, D. H., Tuma, R. & Thomas, G. J., 5 Jun 1998, In: Journal of Molecular Biology. 279, 2, p. 347-359 13 p.

Assembly of a functional phage PRD1 receptor depends on 11 genes of the IncP plasmid mating pair formation complex
Grahn, AM., Haase, J., Lanka, E. & Bamford, DH., Aug 1997, In: Journal of Bacteriology. 179, 15, p. 4733-4740 8 p.

Changes in host cell energetics in response to bacteriophage PRD1 DNA entry
Daugelavicius, R., Bamford, JKH. & Bamford, DH., Aug 1997, In: Journal of Bacteriology. 179, 16, p. 5203-5210 8 p.

The IncP plasmid-encoded cell envelope-associated DNA transfer complex increases cell permeability
Daugelavicius, R., Bamford, JKH., Grahn, AM., Lanka, E. & Bamford, DH., Aug 1997, In: Journal of Bacteriology. 179, 16, p. 5195-5202 8 p.

Binding of lipophilic anions to microbial cells
Daugelavicius, R., Bakiene, E., Berzinskiene, J. & Bamford, DH., May 1997, In: Bioelectrochemistry. 42, 2, p. 263-274 12 p.

Protein P7 of phage phi 6 RNA polymerase complex, acquiring of RNA packaging activity by in vitro assembly of the purified protein onto deficient particles
Juuti, JT. & Bamford, DH., 14 Mar 1997, In: Journal of Molecular Biology. 266, 5, p. 891-900 10 p.

Assembly of membrane-containing bacteriophage PRD1 is dependent on GroEL and GroES
Hanninen, AL., Bamford, DH. & Bamford, JKH., 6 Jan 1997, In: Virology. 227, 1, p. 207-210 4 p.

Probing phage PRD1-specific proteins with monoclonal and polyclonal antibodies
Hanninen, AL., Bamford, DH. & Bamford, JKH., 6 Jan 1997, In: Virology. 227, 1, p. 198-206 9 p.

Comparison of partial 16S rRNA gene sequences obtained from activated sludge bacteria
Vainio, E. J., Moilanen, A., Koivula, T. T., Bamford, D. & Hantula, J., 1997, In: Applied Microbiology and Biotechnology. 48, 1, p. 73-79 7 p.

Intermediates in the assembly pathway of the double-stranded RNA virus phi 6
Butcher, S. J., Dokland, T., Ojala, P. M., Bamford, D. H. & Fuller, S. D., 1997, In: EMBO Journal. 16, p. 4477-4487 11 p.

Viruses, RNA packaging of

Bamford, D. H., 1997, *The Encyclopedia of Molecular Biology and Molecular Medicine*. Mayers, RA. (ed.). p. 217-223

Structure, interactions and dynamics of PRD1 virus .1. Coupling of subunit folding and capsid assembly

Tuma, R., Bamford, JHK., Bamford, DH., Russell, MP. & Thomas, GJ., 22 Mar 1996, In: *Journal of Molecular Biology*. 257 , 1, p. 87-101 15 p.

Structure, interactions and dynamics of PRD1 virus .2. Organization of the viral membrane and DNA

Tuma, R., Bamford, JHK., Bamford, DH. & Thomas, GJ., 22 Mar 1996, In: *Journal of Molecular Biology*. 257, 1, p. 102-115 14 p.

Bacterial diversity at surface water in three locations within the Baltic sea as revealed by culture-dependent molecular techniques

Hantula, J., Koivula, TT., Luo, C. & Bamford, DH., 1996, In: *Journal of Basic Microbiology*. 36, 3, p. 163-176 14 p.

DOUBLE-STRANDED-RNA BACTERIOPHAGE-PHI-6 PROTEIN P4 IS AN UNSPECIFIC NUCLEOSIDE TRIPHOSPHATASE ACTIVATED BY CALCIUM-IONS

Paatero, A. O., Syvaoja, J. E. & Bamford, D., Nov 1995, In: *Journal of Virology*. 69, 11, p. 6729-6734 6 p.

BACTERIAL CONJUGATION MEDIATED BY PLASMID RP4 - RSF1010 MOBILIZATION, DONOR-SPECIFIC PHAGE PROPAGATION, AND PILUS PRODUCTION REQUIRE THE SAME TRA2 CORE COMPONENTS OF A PROPOSED DNA TRANSPORT COMPLEX

Haase, J., Lurz, R., Grahn, A. M., Bamford, D. & Lanka, E., Aug 1995, In: *Journal of Bacteriology*. 177, 16, p. 4779-4791 13 p.

RNA-BINDING, PACKAGING AND POLYMERASE ACTIVITIES OF THE DIFFERENT INCOMPLETE POLYMERASE COMPLEX PARTICLES OF DSRNA BACTERIOPHAGE-PHI-6

Juuti, JT. & Bamford, D., 9 Jun 1995, In: *Journal of Molecular Biology*. 249, 3, p. 545-554 10 p.

DEPENDENCE OF FLOCCULATION AND AGGREGATE FORMATION AND BUOYANT DENSITY IN FLAVOBACTERIUM SP

Hantula, J. & Bamford, D., Apr 1995, In: *Applied Microbiology and Biotechnology*. 43, 1, p. 137-142 6 p.

IN-VITRO TRANSCRIPTION OF THE DOUBLE-STRANDED-RNA BACTERIOPHAGE-PHI-6 IS INFLUENCED BY PURINE NTPS AND CALCIUM

Ojala, PM. & Bamford, D., 10 Mar 1995, In: *Virology*. 207, 2, p. 400-408 9 p.

BACTERIOPHAGE PRD1 - A BROAD-HOST-RANGE DSDNA TECTIVIRUS WITH AN INTERNAL MEMBRANE

Bamford, D., Caldentey, J. & Bamford, J., 1995, *ADVANCES IN VIRUS RESEARCH*, VOL 45. Academic Press, p. 281-319 39 p.

Cystoviridae

Bamford, D. H., 1995, *Virus Taxonomy, Classification and Nomenclature of Viruses*. Murphy, FA., Fauquet, CM., Bishop, DHL., Ghabrial, SA., Jarvis, AW., Martelli, GP., Mayo, MA. & Summer, MD. (eds.). p. 205-207

Differentiation between Minus- and Plus-Strand Synthesis: Polymerase Activity of dsRNA Bacteriophage φ6 in an in Vitro Packaging and Replication System

Van Dijk, A. A., Frilander, M. & Bamford, D. H., 1995, In: *Virology*. 211, 1, p. 320-323 4 p.

DNA packaging orders the membrane of bacteriophage PRD1

Butcher, S. J., Bamford, D. H. & Fuller, S. D., 1995, In: *EMBO Journal*. 14, 24, p. 6078-6086 9 p.

In-vitro packaging of the single-stranded RNA genomic precursors of the segmented double-stranded-rna bacteriophage φ6: The three segments modulate each others packaging efficiency
FRILANDER, M. & BAMFORD, D. H., 1995, In: *Journal of Molecular Biology*. 246, p. 418-428 11 p.

Isolation, purification and function of the assembly intermediates and subviral particles of bacteriophages PRD1 and PHI-6
Bamford, D. H., Ojala, P. M., Frilander, M., Walin, L. & Bamford, J. KH., 1995, In: *Methods in Molecular Genetics*. 6, p. 455-474

Tectiviridae

Ackermann, H. & Bamford, D. H., 1995, *Virus Taxonomy, Classification and Nomenclature of Viruses*. Murphy, FA., Fauquet, CM., Bishop, DHL., Ghabrial, SA., Jarvis, AW., Martelli, GP., Mayo, MA. & Summers, MD. (eds.). p. 64-66

The large genome segment of dsRNA bacteriophage φ6 is the key regulator in the in vitro minus and plus strand synthesis
Frilander, M., Poranen, M. & Bamford, D. H., 1995, In: *RNA*. 1, p. 510-518 9 p.

Viruses, RNA packaging of

Bamford, D. H., 1995, *Molecular Biology and Biotechnology*. Mayers, RA. (ed.). p. 957-960

EXPRESSION IN ESCHERICHIA-COLI OF RAT NEUROTENSIN RECEPTOR FUSED TO MEMBRANE-PROTEINS FROM THE MEMBRANE-CONTAINING BACTERIOPHAGE-PRD1

Hänninen, A-L., Bamford, D. & Grisshammer, R., Dec 1994, In: *Biological chemistry Hoppe-Seyler*. 375, 12, p. 833-836 4 p.

NTP BINDING INDUCES CONFORMATIONAL-CHANGES IN THE DOUBLE-STRANDED-RNA BACTERIOPHAGE-06 SUBVIRAL PARTICLES

Ojala, PM., Paatero, A. O. & Bamford, D., 15 Nov 1994, In: *Virology*. 205, 1, p. 170-178 9 p.

GENE-XV OF BACTERIOPHAGE-PRD1 ENCODES A LYtic ENZYME WITH MURAMIDASE ACTIVITY

Caldentey, J., Hänninen, A-L. & Bamford, D., 1 Oct 1994, In: *European Journal of Biochemistry*. 225, 1, p. 341-346 6 p.

PURIFICATION OF VIRUSES AND MACROMOLECULAR ASSEMBLIES FOR STRUCTURAL INVESTIGATIONS USING A NOVEL ION-EXCHANGE METHOD

Waln, L., Tuma, R., Thomas, GJ. & Bamford, D., 15 May 1994, In: *Virology*. 201, 1, p. 1-7 7 p.

FUNCTIONAL-ORGANIZATION OF THE BACTERIOPHAGE PRD1 GENOME

Grahn, AM., Bamford, J., ONeill, MC. & Bamford, D., May 1994, In: *Journal of Bacteriology*. 176, 10, p. 3062-3068 7 p.

ASSEMBLY OF DOUBLE-STRANDED-RNA VIRUSES - BACTERIOPHAGE PHI-6 AND YEAST VIRUS L-A

Bamford, D. & Wickner, RB., Feb 1994, *Seminars in Virology*. Vol. 5. p. 61-69 9 p.

Bacteriophage PHI-6

Bamford, D. H., 1994, *Encyclopedia of Virology*. Webster, R. & Granoff, A. (eds.). p. 978-980

PRD1 Bacteriophage

Bamford, D. H., 1994, *Encyclopedia of Virology*. Webster, R. & Granoff, A. (eds.). p. 1165-1168

TOPOLOGY OF THE MAJOR CAPSID PROTEIN-P3 OF BACTERIOPHAGE PRD1 - ANALYSIS USING MONOCLONAL-ANTIBODIES AND C-TERMINALLY TRUNCATED PROTEINS

Bamford, J., Luo, C., Juuti, JT., Olkkonen, V. & Bamford, D., Dec 1993, In: *Virology*. 197, 2, p. 652-658 7 p.

IN-VITRO REPLICATION OF BACTERIOPHAGE PRD1 DNA - CHARACTERIZATION OF THE PROTEIN-PRIMED INITIATION SITE

Caldentey, J., Blanco, L., Bamford, D. & Salas, M., 11 Aug 1993, In: *Nucleic Acids Research*. 21, 16, p. 3725-3730 6 p.

PROTEIN-PRIMED DNA-REPLICATION - ROLE OF INVERTED TERMINAL REPEATS IN THE ESCHERICHIA-COLI BACTERIOPHAGE-PRD1 LIFE-CYCLE

Savilahti, H. & Bamford, D., Aug 1993, In: *Journal of Virology*. 67, 8, p. 4696-4703 8 p.

PRESUMPTIVE FECAL STREPTOCOCCI IN ENVIRONMENTAL-SAMPLES CHARACTERIZED BY ONE-DIMENSIONAL SODIUM DODECYL SULFATE-POLYACRYLAMIDE GEL-ELECTROPHORESIS

Niemi, RM., Niemelä, S., Bamford, D., Hantula, J., Hyvarinen, T., Forsten, T. & Raateland, A., Jul 1993, In: *Applied and Environmental Microbiology*. 59, 7, p. 2190-2196 7 p.

BACTERIOPHAGE-PRD1 PROTEINS - CROSS-LINKING AND SCANNING-TRANSMISSION ELECTRON-MICROSCOPY ANALYSIS

Luo, C., Hantula, J., Tichelaar, W. & Bamford, D., Jun 1993, In: *Virology*. 194, 2, p. 570-575 6 p.

DISSOCIATION OF THE LIPID-CONTAINING BACTERIOPHAGE-PRD1 - EFFECTS OF HEAT, PH, AND SODIUM DODECYL-SULFATE

Caldentey, J., Luo, C. & Bamford, D., Jun 1993, In: *Virology*. 194, 2, p. 557-563 7 p.

BINDING OF AN ESCHERICHIA-COLI DOUBLE-STRANDED DNA VIRUS PRD1 TO A RECEPTOR CODED BY AN INCP-TYPE PLASMID

Kotilainen, MM., Grahn, AM., Bamford, J. & Bamford, D., May 1993, In: *Journal of Bacteriology*. 175, 10, p. 3089-3095 7 p.

PROTEIN-P4 OF DOUBLE-STRANDED-RNA BACTERIOPHAGE OMICRON-6 IS ACCESSIBLE ON THE NUCLEOCAPSID SURFACE - EPITOPE MAPPING AND ORIENTATION OF THE PROTEIN

Ojala, PM., Juuti, JT. & Bamford, D., May 1993, In: *Journal of Virology*. 67, 5, p. 2879-2886 8 p.

OVERPRODUCTION, PURIFICATION, AND CHARACTERIZATION OF DNA-BINDING PROTEIN P19 OF BACTERIOPHAGE PRD1

Pakula, TM., Caldentey, J., Gutierrez, C., Olkkonen, V., Bamford, D. H. & Salas, M., 15 Apr 1993, In: *Gene*. 126, 1, p. 99-104 6 p.

STRUCTURAL STUDIES OF THE ENVELOPED DSRNA BACTERIOPHAGE PHI-6 OF PSEUDOMONAS-SYRINGAE BY RAMAN-SPECTROSCOPY .1. THE VIRION AND ITS MEMBRANE ENVELOPE

Li, TS., Bamford, D. H., Bamford, J. & Thomas, GJ., 20 Mar 1993, In: *Journal of Molecular Biology*. 230, 2, p. 461-472 12 p.

STRUCTURAL STUDIES OF THE ENVELOPED DSRNA BACTERIOPHAGE PHI-6 OF PSEUDOMONAS-SYRINGAE BY RAMAN-SPECTROSCOPY .2. NUCLEOCAPSID STRUCTURE AND THERMOSTABILITY OF THE VIRION, NUCLEOCAPSID AND POLYMERASE COMPLEX

Bamford, J. K., Bamford, D. H., Li, TS. & Thomas, GJ., 20 Mar 1993, In: *Journal of Molecular Biology*. 230, 2, p. 473-482 10 p.

CRYSTALLIZATION OF THE MAJOR COAT PROTEIN OF PRD1, A BACTERIOPHAGE WITH AN INTERNAL MEMBRANE

Stewart, PL., Ghosh, S., Bamford, D. H. & Burnett, RM., 5 Mar 1993, In: *Journal of Molecular Biology*. 230, 1, p. 349-352 4 p.

ISOLATION OF A PHOSPHOLIPID-FREE PROTEIN SHELL OF BACTERIOPHAGE-PRD1, AN ESCHERICHIA-COLI VIRUS WITH AN INTERNAL MEMBRANE

LUO, C., BUTCHER, S. & BAMFORD, D. H., 1993, In: *Virology*. 194, 2, p. 564-569 6 p.

BACTERIOPHAGE-PHI-6 ENVELOPE ELUCIDATED BY CHEMICAL CROSS-LINKING, IMMUNODETECTION, AND CRYOELECTRON MICROSCOPY

Kenney, JM., Hantula, J., Fuller, SD., Mindich, L., Ojala, PM. & Bamford, D. H., Oct 1992, In: *Virology*. 190, 2, p. 635-644 10 p.

THE LYTIC ENZYME OF THE PSEUDOMONAS PHAGE PHI-6 - PURIFICATION AND BIOCHEMICAL-CHARACTERIZATION

Caldentey, J. & Bamford, D. H., 4 Sept 1992, In: *Biochimica et Biophysica Acta.* 1159, 1, p. 44-50 7 p.

INVITRO REPLICATION OF BACTERIOPHAGE PRD1 DNA - METAL ACTIVATION OF PROTEIN-PRIMED INITIATION AND DNA ELONGATION

Caldentey, J., Blanco, L., Savilahti, H., Bamford, D. H. & Salas, M., 11 Aug 1992, In: *Nucleic Acids Research.* 20, 15, p. 3971-3976 6 p.

CONSTRUCTION OF A TRANSDUCING VIRUS FROM DOUBLE-STRANDED-RNA BACTERIOPHAGE-PHI-6 - ESTABLISHMENT OF CARRIER STATES IN HOST-CELLS

Onodera, S., Olkkonen, V., Gottlieb, P., Strassman, J., Qiao, XY., Bamford, D. H. & Mindich, L., Jan 1992, In: *Journal of Virology.* 66, 1, p. 190-196 7 p.

Dependence Of Minus-Strand Synthesis On Complete Genomic Packaging In The Double-Stranded-RNA Bacteriophage φ6

FRILANDER, M., GOTTLIEB, P., STRASSMAN, J., BAMFORD, D. H. & MINDICH, L., 1992, In: *Journal of Virology.* 66, p. 5013-5017 5 p.

OVEREXPRESSION, PURIFICATION, AND CHARACTERIZATION OF ESCHERICHIA-COLI BACTERIOPHAGE-PRD1 DNA-POLYMERASE - INVITRO SYNTHESIS OF FULL-LENGTH PRD1 DNA WITH PURIFIED PROTEINS

Savilahti, H., Caldentey, J., Lundstrom, K., Syvaoja, JE. & Bamford, D. H., 5 Oct 1991, In: *Journal of Biological Chemistry.* 266, 28, p. 18737-18744 8 p.

BACTERIOPHAGE RESISTANCE AND FLOCCULATION DEFICIENCY OF FLAVOBACTERIUM SP ARE PHENOTYPICALLY INTERRELATED

Hantula, J. & Bamford, D. H., Oct 1991, In: *Applied Microbiology and Biotechnology.* 36, 1, p. 105-108 4 p.

THE EFFICIENCY OF THE PROTEIN-DEPENDENT FLOCCULATION OF FLAVOBACTERIUM SP IS SENSITIVE TO THE COMPOSITION OF GROWTH-MEDIUM

Hantula, J. & Bamford, D. H., Oct 1991, In: *Applied Microbiology and Biotechnology.* 36, 1, p. 100-104 5 p.

MONOCLONAL-ANTIBODIES AGAINST CORE AND CELLULOSE-BINDING DOMAINS OF TRICHODERMA-REESEI CELLOBIOHYDROLASE-I AND CELLOBIOHYDROLASE-II AND ENDOGLUCANASE-I

Aho, S., Olkkonen, V., Jalava, T., Paloheimo, M., Buhler, R., Nikupaavola, ML., Bamford, D. H. & Korhola, M., 15 Sept 1991, In: *European Journal of Biochemistry.* 200, 3, p. 643-649 7 p.

ECOLOGY OF BACTERIOPHAGES INFECTING ACTIVATED-SLUDGE BACTERIA

Hantula, J., Kurki, A., Vuoriranta, P. & Bamford, D. H., Aug 1991, In: *Applied and Environmental Microbiology.* 57, 8, p. 2147-2151 5 p.

HIGH-FREQUENCY TRANSFER OF LINEAR DNA CONTAINING 5'-COVALENTLY LINKED TERMINAL PROTEINS - ELECTROPORATION OF BACTERIOPHAGE-PRD1 GENOME INTO ESCHERICHIA-COLI

Lyra, C., Savilahti, H. & Bamford, D. H., Aug 1991, In: *Molecular & General Genetics.* 228, 1-2, p. 65-69 5 p.

GENERATION OF INFECTIOUS NUCLEOCAPSIDS BY INVITRO ASSEMBLY OF THE SHELL PROTEIN ON TO THE POLYMERASE COMPLEX OF THE DSRNA BACTERIOPHAGE PHI-6

Olkkanen, V., Ojala, PM. & Bamford, D. H., 5 Apr 1991, In: *Journal of Molecular Biology.* 218, 3, p. 569-581 13 p.

LARGE-SCALE PURIFICATION OF MEMBRANE-CONTAINING BACTERIOPHAGE PRD1 AND ITS SUBVIRAL PARTICLES

Bamford, J. K. & Bamford, D., Mar 1991, In: *Virology.* 181, 1, p. 348-352 5 p.

RAPID CLASSIFICATION OF BACTERIAL STRAINS BY SDS-POLYACRYLAMIDE GEL-ELECTROPHORESIS - POPULATION-DYNAMICS OF THE DOMINANT DISPERSED PHASE BACTERIA OF ACTIVATED-SLUDGE
Hantula, J., Kurki, A., Vuoriranta, P. & Bamford, D. H., Jan 1991, In: Applied Microbiology and Biotechnology. 34, 4, p. 551-555 5 p.

Genome organization of membrane-containing bacteriophage PRD1

Bamford, J. K. H., Hänninen, A-L., Pakula, T. M., Ojala, P. M., Kalkkinen, N., Frilander, M. & Bamford, D. H., 1991, In: Virology. 183, 2, p. 658-676 19 p.

INVITRO ASSEMBLY OF INFECTIOUS NUCLEOCAPSIDS OF BACTERIOPHAGE-PHI-6 - FORMATION OF A RECOMBINANT DOUBLE-STRANDED-RNA VIRUS

Olkkinen, V., Gottlieb, P., Strassman, J., Qiao, XY., Bamford, D. H. & Mindich, L., Dec 1990, In: Proceedings of the National Academy of Sciences of the United States of America. 87, 23, p. 9173-9177 5 p.

CHARACTERIZATION OF A DNA-BINDING PROTEIN OF BACTERIOPHAGE PRD1 INVOLVED IN DNA-REPLICATION

Pakula, TM., Caldentey, J., Serrano, M., Gutierrez, C., Hermoso, JM., Salas, M. & Bamford, D. H., 25 Nov 1990, In: Nucleic Acids Research. 18, 22, p. 6553-6557 5 p.

PURIFIED PHI-6 NUCLEOCAPSIDS ARE CAPABLE OF PRODUCTIVE INFECTION OF HOST-CELLS WITH PARTIALLY DISRUPTED OUTER MEMBRANES

Ojala, PM., Romantschuk, M. & Bamford, D. H., Oct 1990, In: Virology. 178, 2, p. 364-372 9 p.

CAPSOMER PROTEINS OF BACTERIOPHAGE PRD1, A BACTERIAL-VIRUS WITH A MEMBRANE

Bamford, J. K. & Bamford, D. H., Aug 1990, In: Virology. 177, 2, p. 445-451 7 p.

DETERMINATION OF TAXONOMIC RESOLUTION CAPACITY OF CONVENTIONAL ONE-DIMENSIONAL SDS-POLYACRYLAMIDE GEL-ELECTROPHORESIS OF WHOLE-CELL PROTEINS USING ENTEROBACTERIACEAE

Hantula, J., Korhonen, T. & Bamford, D. H., Aug 1990, In: FEMS Microbiology Letters. 70, 3, p. 325-330 6 p.

STUDIES OF VIRUS STRUCTURE BY LASER RAMAN-SPECTROSCOPY .33. STRUCTURAL STUDY OF THE LIPID-CONTAINING BACTERIOPHAGE PRD1 AND ITS CAPSID AND DNA COMPONENTS BY LASER RAMAN-SPECTROSCOPY

Bamford, D. H., Bamford, J. K., Towse, SA. & Thomas, GJ., 26 Jun 1990, In: Biochemistry. 29, 25, p. 5982-5987 6 p.

COLLAGENOUS PROTEINS MULTIPLY

Bamford, D. H. & Bamford, J. K., 5 Apr 1990, In: Nature. 344, 6266, p. 497-497 1 p.

STRUCTURE AND ASSEMBLY OF BACTERIOPHAGE-PRD1, AN ESCHERICHIA-COLI VIRUS WITH A MEMBRANE

Caldentey, J., Bamford, J. K. & Bamford, D. H., 1990, In: Journal of Structural Biology. 104, 1-3, p. 44-51 8 p.

BACTERIOPHAGE PRD1 TERMINAL PROTEIN - EXPRESSION OF GENE-VIII IN ESCHERICHIA-COLI AND PURIFICATION OF THE FUNCTIONAL P8 PRODUCT

Savilahti, H., Caldentey, J. & Bamford, D. H., 21 Dec 1989, In: Gene. 85, 1, p. 45-51 7 p.

THE ORGANIZATION OF THE RIGHT-END EARLY REGION OF BACTERIOPHAGE PRD1 GENOME

Pakula, TM., Savilahti, H. & Bamford, D. H., 21 Dec 1989, In: Gene. 85, 1, p. 53-58 6 p.

QUANTITATION OF THE ADSORPTION AND PENETRATION STAGES OF BACTERIOPHAGE PHI-6 INFECTION

Olkkinen, V. M. & Bamford, D. H., Jul 1989, In: Virology. 171, 1, p. 229-238 10 p.

COMPARISON OF THE AMINO-ACID SEQUENCE OF THE LYtic ENZYME FROM BROAD-HOST-RANGE BACTERIOPHAGE PRD1 WITH SEQUENCES OF OTHER CELL-WALL-PEPTIDOGLYCAN LYtic ENZYMES

Pakula, TM., Savilahti, H. & Bamford, D., 1 Mar 1989, In: European Journal of Biochemistry. 180, 1, p. 149-152 4 p.

FLOC FORMATION OF ACTIVATED-SLUDGE BACTERIA

Kurki, A., Hantula, J., Bamford, DH. & Vuoriranta, P., 1989, In: Water Science and Technology. 21, 12, p. 1637-1638 2 p.

CHEMICAL CROSSLINKING OF BACTERIOPHAGE-PHI-6 NUCLEOCAPSID PROTEINS

Hantula, J. & Bamford, D. H., Aug 1988, In: Virology. 165, 2, p. 482-488 7 p.

MONOCLONAL-ANTIBODIES TO THE MAJOR STRUCTURAL PROTEINS OF BACTERIOPHAGE-PHI-6

Olkkinen, V., Pekkala, PM. & Bamford, D. H., Jul 1988, In: Virology. 165, 1, p. 317-320 4 p.

THE NUCLEOCAPSID OF BACTERIOPHAGE PHI-6 PENETRATES THE HOST CYTOPLASMIC MEMBRANE

Romantschuk, M., Olkkonen, V. & Bamford, D. H., Jun 1988, In: EMBO Journal. 7, 6, p. 1821-1829 9 p.

NUCLEOTIDE-SEQUENCE OF THE LARGE DOUBLE-STRANDED-RNA SEGMENT OF BACTERIOPHAGE-PHI-6 - GENES SPECIFYING THE VIRAL REPLICASE AND TRANSCRIPTASE

Mindich, L., Nemhauser, I., Gottlieb, P., Romantschuk, M., Carton, J., Frucht, S., Strassman, J., Bamford, D. H. & Kalkkinen, N., Apr 1988, In: Journal of Virology. 62, 4, p. 1180-1185 6 p.

NUCLEOTIDE-SEQUENCE OF THE MIDDLE DSRNA SEGMENT OF BACTERIOPHAGE-PHI-6 - PLACEMENT OF THE GENES OF MEMBRANE-ASSOCIATED PROTEINS

Gottlieb, P., Metzger, S., Romantschuk, M., Carton, J., Strassman, J., Bamford, D. H., Kalkkinen, N. & Mindich, L., Mar 1988, In: Virology. 163, 1, p. 183-190 8 p.

PRODUCTION OF A POLYHEDRAL PARTICLE IN ESCHERICHIA-COLI FROM A CDNA COPY OF THE LARGE GENOMIC SEGMENT OF BACTERIOPHAGE-PHI-6

Gottlieb, P., Strassman, J., Bamford, D. H. & Mindich, L., Jan 1988, In: Journal of Virology. 62, 1, p. 181-187 7 p.

Lipid-containing bacteriophages

Mindich, L. & Bamford, D. H., 1988, *The Bacteriophages*. Calendar, R. (ed.). p. 475-520

THE NUCLEOCAPSID OF THE LIPID-CONTAINING DOUBLE-STRANDED-RNA BACTERIOPHAGE PHI-6 CONTAINS A PROTEIN SKELETON CONSISTING OF A SINGLE POLYPEPTIDE SPECIES

Olkkinen, V. M. & Bamford, D. H., Aug 1987, In: Journal of Virology. 61, 8, p. 2362-2367 6 p.

MEMBRANE-FUSION IN PROKARYOTES - BACTERIOPHAGE-PHI-6 MEMBRANE FUSES WITH THE PSEUDOMONAS-SYRINGAE OUTER-MEMBRANE

Bamford, D. H., Romantschuk, M. & Somerharju, PJ., May 1987, In: EMBO Journal. 6, 5, p. 1467-1473 7 p.

Chromosomally coded pili of Pseudomonas syringae pv phaseolicola function as adhesions in early step of halo blight of bean

Romantschuk, M. & Bamford, D. H., 1987, *Recognition in Microbe-Plant Symbiotic and Pathogenic interactions*. Civerolo, EL., Collimer, A., Davis, RE. & Gillapsie, AG. (eds.).

THE COMPLETE NUCLEOTIDE-SEQUENCE OF THE LEFT VERY EARLY REGION OF ESCHERICHIA-COLI BACTERIOPHAGE PRD1 CODING FOR THE TERMINAL PROTEIN AND THE DNA-POLYMERASE

Savilahti, H. & Bamford, D. H., 1987, In: Gene. 57, 1, p. 121-130 10 p.

THE CAUSAL AGENT OF HALO BLIGHT IN BEAN, PSEUDOMONAS-SYRINGAE PV PHASEOLICOLA, ATTACHES TO STOMATA VIA ITS PILI

Romantschuk, M. & Bamford, D. H., Apr 1986, In: Microbial Pathogenesis. 1, 2, p. 139-148 10 p.

LINEAR DNA-REPLICATION - INVERTED TERMINAL REPEATS OF 5 CLOSELY RELATED ESCHERICHIA-COLI BACTERIOPHAGES

Savilahti, H. & Bamford, D. H., 1986, In: Gene. 49, 2, p. 199-205 7 p.

Role of fimbriae and pili in the attachment of Klebsiella, Enterobacter and Pseudomonas to plant surfaces
Korhonen, T., Haahtela, K., Romantschuk, M. & Bamford, D. H., 1986, *Recognition in Microbe-Plant Symbiotic and Pathogenic Interactions*. Lugtenberg, B. (ed.). p. 229-241

CDNA CLONING OF PORTIONS OF THE BACTERIOPHAGE-PHI-6 GENOME

Mindich, L., Mackenzie, G., Strassman, J., McGraw, T., Metzger, S., Romantschuk, M. & Bamford, DH., 1985, In: *Journal of Bacteriology*. 162, 3, p. 992-999 8 p.

FUNCTION OF PILI IN BACTERIOPHAGE-PHI-6 PENETRATION

Romantschuk, M. & Bamford, D. H., 1985, In: *Journal of General Virology*. 66, NOV, p. 2461-2469 9 p.

CHARACTERIZATION OF THE DNA-PROTEIN COMPLEX AT THE TERMINI OF THE BACTERIOPHAGE PRD1 GENOME

Bamford, D. H. & Mindich, L., 1984, In: *Journal of Virology*. 50, 2, p. 309-315 7 p.

IDENTIFICATION OF A PROTEIN-BOUND TO THE TERMINI OF BACTERIOPHAGE-PRD1 DNA

Bamford, DH., McGraw, T., Mackenzie, G. & Mindich, L., 1983, In: *Journal of Virology*. 47, 2, p. 311-316 6 p.

ASSEMBLY OF BACTERIOPHAGE PRD1: PARTICLE FORMATION WITH WILD-TYPE AND MUTANT VIRUSES

Mindich, L., Bamford, D., McGraw, T. & Mackenzie, G., 1982, In: *Journal of Virology*. 44, 3, p. 1021-1030 10 p.

CHANGES IN MUSCLE SUB-CELLULAR FRACTIONS OF BALTIC HERRING (CLUPEA-HARENGUS-MEMBRAS) DURING COLD AND FROZEN STORAGE

Karvinen, VP., Bamford, D. H. & Granroth, B., 1982, In: *Journal of the Science of Food and Agriculture*. 33, 8, p. 763-770 8 p.

FURTHER ELECTRON-MICROSCOPIC STUDIES ON THE INFECTION PROCESS OF THE LIPID-CONTAINING BACTERIOPHAGE-PHI-6

Bamford, D. H. & Lounatmaa, K., 1982, In: *Journal of General Virology*. 61, JUL, p. 149-152 4 p.

ISOLATION OF NONSENSE MUTANTS OF LIPID-CONTAINING BACTERIOPHAGE-PRD1

Mindich, L., Bamford, D., Goldthwaite, C., Laverty, M. & Mackenzie, G., 1982, In: *Journal of Virology*. 44, 3, p. 1013-1020 8 p.

STRUCTURE OF THE LIPID-CONTAINING BACTERIOPHAGE-PRD1 - DISRUPTION OF WILD-TYPE AND NONSENSE MUTANT PHAGE PARTICLES WITH GUANIDINE-HYDROCHLORIDE

Bamford, DH. & Mindich, L., 1982, In: *Journal of Virology*. 44, 3, p. 1031-1038 8 p.

COMPARISON OF THE LIPID-CONTAINING BACTERIOPHAGE-PRD1, BACTERIOPHAGE-PR3, BACTERIOPHAGE-PR4, BACTERIOPHAGE-PR5 AND BACTERIOPHAGE-L17

Bamford, D. H., Rouhiainen, L., Takkinen, K. & Soderlund, H., 1981, In: *Journal of General Virology*. 57, DEC, p. 365-373 9 p.

Lipid-containing bacterial viruses: disruption studies on Phi-6

Bamford, D. H., 1981, In: *Progress in Clinical and Biological Research*. 64, p. 477-489

PHI-6-RESISTANT PHAGE-PRODUCING MUTANTS OF PSEUDOMONAS-PHASEOLICOLA

Romantschuk, M. & Bamford, D. H., 1981, In: *Journal of General Virology*. 56, OCT, p. 287-295 9 p.

Attachment and penetration of lipid-containing bacteriophages

Palva, E. T. & Bamford, D. H., 1980, *Receptors and Recognition, Series B*. Philipson, L. & Randall, L. (eds.). p. 95-114

ELECTRON-MICROSCOPY OF CELLS INFECTED WITH NONSENSE MUTANTS OF BACTERIOPHAGE-PHI-6
Bamford, D. H. & Mindich, L., 1980, In: Virology. 107, 1, p. 222-228 7 p.

STRUCTURE OF THE LIPID-CONTAINING BACTERIOPHAGE-PHI-6 - DISRUPTION BY TRITON X-100 TREATMENT
Bamford, D. H. & Palva, E. T., 1980, In: Biochimica et Biophysica Acta. 601, 2, p. 245-259 15 p.

LIPID-CONTAINING BACTERIOPHAGE-PR4 - STRUCTURE AND LIFE-CYCLE

Lundstrom, K.H., Bamford, D. H., Palva, E. T. & Lounatmaa, K., 1979, In: Journal of General Virology. 43, JUN, p. 583-592 10 p.

FREEZE-FRACTURING OF PSEUDOMONAS-PHASEOLICOLA INFECTED BY LIPID-CONTAINING BACTERIOPHAGE PHI-

Bamford, D. H. & Lounatmaa, K., 1978, In: Journal of General Virology. 39, APR, p. 161-170 10 p.

GENETICS OF PLAQUE-SIZE MUTANTS OF DOUBLE-STRANDED-RNA BACTERIOPHAGE-PSI-6
Liljestrom, PT. & Bamford, D. H., 1978, In: Hereditas. 88, 1, p. 135-137 3 p.

MUTAGENICITY AND TOXICITY OF AMITROLE .1. DROSOPHILA TESTS

Laamanen, I., Sorsa, M., Bamford, D., Gripenberg, U. & Meretoja, T., 1976, In: Mutation research. Reviews in mutation research. 40, 3, p. 185-190 6 p.

MUTAGENICITY AND TOXICITY OF AMITROLE .2. HUMAN LYMPHOCYTE CULTURE TESTS

Meretoja, T., Gripenberg, U., Bamford, DH., Laamanen, I. & Sorsa, M., 1976, In: Mutation research. Reviews in mutation research. 40, 3, p. 191-195 5 p.

MUTAGENICITY AND TOXICITY OF AMITROLE .3. MICROBIAL TESTS

Bamford, DH., Sorsa, M., Gripenberg, U., Laamanen, I. & Meretoja, T., 1976, In: Mutation research. Reviews in mutation research. 40, 3, p. 197-202 6 p.

ULTRASTRUCTURE AND LIFE-CYCLE OF LIPID-CONTAINING BACTERIOPHAGE-PHI6

Bamford, D. H., Palva, E. T. & Lounatmaa, K., 1976, In: Journal of General Virology. 32, AUG, p. 249-259 11 p.

Activities

Electrophoresis (Journal)
Dennis Bamford (Reviewer)
12 Apr 2017

Journal of Virology (Journal)
Dennis Bamford (Reviewer)
17 Mar 2017

Evaluation of application for professorship
Dennis Bamford (Consultant)
9 Mar 2017

Journal of Virology (Journal)
Dennis Bamford (Reviewer)
1 Mar 2017

Instruct Executive Meeting
Dennis Bamford (Attendee)

23 Feb 2017

Elina Laanto

Dennis Bamford (Host)

1 Feb 2017 → 31 Jul 2017

Proceedings of the National Academy of Sciences of the United States of America (Journal)

Dennis Bamford (Reviewer)

1 Feb 2017

Structure (Journal)

Dennis Bamford (Reviewer)

27 Jan 2017

Opponent of doctoral dissertation

Dennis Bamford (Opponent)

12 Dec 2016

Opponent of doctoral dissertation

Dennis Bamford (Supervisor)

12 Dec 2016

Institut Pasteur

Dennis Bamford (Visiting researcher)

11 Dec 2016 → 13 Dec 2016

The City College of New York

Dennis Bamford (Visiting researcher)

5 Dec 2016 → 7 Dec 2016

National Institute of Health

Dennis Bamford (Visiting researcher)

3 Dec 2016 → 4 Dec 2016

University of South Florida

Dennis Bamford (Visiting researcher)

1 Dec 2016 → 2 Dec 2016

University of Pittsburg

Dennis Bamford (Visiting researcher)

28 Nov 2016 → 30 Nov 2016

Instruct, University of Oxford

Dennis Bamford (Other role)

16 Nov 2016 → 17 Nov 2016

Instruct, University of Oxford

Dennis Bamford (Visiting researcher)

16 Nov 2016 → 18 Nov 2016

Opponent of doctoral dissertation

Dennis Bamford (Opponent)

28 Oct 2016

Journal of Virological Methods (Journal)

Dennis Bamford (Reviewer)

7 Sept 2016

mBio (Journal)

Dennis Bamford (Reviewer)

1 Jul 2016

Journal of Virology (Journal)

Dennis Bamford (Reviewer)

Jul 2016

mBio (Journal)

Dennis Bamford (Reviewer)

Jun 2016

Proceedings of the National Academy of Sciences of the United States of America (Journal)

Dennis Bamford (Reviewer)

Feb 2016

Proceedings of the National Academy of Sciences of the United States of America (Journal)

Dennis Bamford (Reviewer)

Jan 2016

Viruses (Basel) (Journal)

Dennis Bamford (Reviewer)

Jan 2016

Publication Forum/Julkaisufoorumi (External organisation)

Dennis Bamford (Member)

2016 → 2019

Opponent of doctoral dissertation

Dennis Bamford (Opponent)

3 Dec 2015

Proceedings of the National Academy of Sciences of the United States of America (Journal)

Dennis Bamford (Reviewer)

Nov 2015

Okinawa Institute of Science and Technology seminar

Dennis Bamford (Speaker: Presenter)

28 Oct 2015

dsRNA virus symposium

Dennis Bamford (Speaker: Keynote)

3 Oct 2015 → 11 Oct 2015

Phages 2015

Dennis Bamford (Speaker: Keynote)

1 Sept 2015 → 2 Sept 2015

XXIV Biennal Conference on Phage/Virus Assembly

Dennis Bamford (Poster Presentation)

7 Jun 2015 → 12 Jun 2015

Opponent of doctoral dissertation

Dennis Bamford (Opponent)

5 Jun 2015

Instruct Biennal Meeting 2015

Dennis Bamford (Poster Presentation)

20 May 2015 → 22 May 2015

ESFRI Instruct (External organisation)

Dennis Bamford (Member)

14 Apr 2015 → 15 Apr 2015

Seminar presentation

Dennis Bamford (Speaker: Presenter)

29 Mar 2015

Physical Virology: From Structure to Evolution

Dennis Bamford (Speaker: Keynote)

9 Mar 2015 → 11 Mar 2015

Irma Orentaitė

Dennis Bamford (Host)

20 Jan 2015 → ...

Journal of Virological Methods (Journal)

Dennis Bamford (Reviewer)

2015

Journal of Virology (Journal)

Dennis Bamford (Reviewer)

2015

Journal of Virology (Journal)

Dennis Bamford (Reviewer)

2015

Journal of Virology (Journal)

Dennis Bamford (Reviewer)

2015

PLoS One (Journal)

Dennis Bamford (Reviewer)

2015

Reviewer (Journal)

Dennis Bamford (Reviewer)

2015

Emmanuelle Quemin

Dennis Bamford (Host)

24 Nov 2014 → 13 Dec 2014

Isaac Santos Perez

Dennis Bamford (Host)

1 Nov 2014 → 28 Feb 2015

Irma Orentaite

Dennis Bamford (Host)

10 Oct 2014 → 10 Dec 2014

Phages 2014

Dennis Bamford (Speaker: Keynote)

16 Sept 2014

Extremophiles 2014

Dennis Bamford (Speaker: Presenter)

7 Sept 2014

Robert Sinclair

Dennis Bamford (Host)

31 Aug 2014 → 6 Sept 2014

Viruses of Microbes

Dennis Bamford (Speaker: Presenter)

13 Jul 2014 → 19 Jul 2014

University of Oxford

Dennis Bamford (Visiting researcher)

7 Jul 2014 → 10 Jul 2014

Rytis Grigonis

Dennis Bamford (Host)

1 Jul 2014 → 31 Aug 2014

FASEB Summer Conference on Virus Assembly

Dennis Bamford (Speaker: Keynote)

29 Jun 2014 → 4 Jul 2014

Diego Charro

Dennis Bamford (Host)

16 Jun 2014 → 26 Jun 2014

Emmanuelle Quemin

Dennis Bamford (Host)

1 Apr 2014 → 11 Jul 2014

European Academy of Microbiology

Dennis Bamford (Visiting researcher)

27 Mar 2014 → 30 Mar 2014

Virology Days 2014

Dennis Bamford (Member of organizing committee)

27 Mar 2014 → 28 Mar 2014

Institut Pasteur invited seminar
Dennis Bamford (Speaker: Presenter)
5 Mar 2014

Max Planck Institute invited seminar
Dennis Bamford (Speaker: Presenter)
12 Feb 2014 → 13 Feb 2014

Exploiting bacteriophages for bioscience, biotechnology, and medicine
Dennis Bamford (Attendee)
22 Jan 2014 → 24 Jan 2014

Archives of Virology (Journal)
Dennis Bamford (Reviewer)
2014

BioMed Central (Publisher)
Dennis Bamford (Reviewer)
2014

Co-supervisor of doctoral thesis
Dennis Bamford (Co-supervisor)
2014 → ...

Current Trends in Microbiology (Journal)
Dennis Bamford (Reviewer)
2014

Environmental Microbiology (Journal)
Dennis Bamford (Reviewer)
2014

Journal of Virology (Journal)
Dennis Bamford (Reviewer)
2014

Journal of Virology (Journal)
Dennis Bamford (Reviewer)
2014

Journal of Virology (Journal)
Dennis Bamford (Reviewer)
2014

Member of thesis examination board
Dennis Bamford (Member of thesis committee / follow-up group)
2014

Molecular Microbiology (Journal)
Dennis Bamford (Reviewer)
2014

Nucleic Acids Research (Journal)
Dennis Bamford (Reviewer)
2014

Proceedings of the National Academy of Sciences of the United States of America (Journal)
Dennis Bamford (Reviewer)
2014

Supervisor of Doctoral thesis
Dennis Bamford (Supervisor)
2014 → ...

Virology (Journal)
Dennis Bamford (Reviewer)
2014

International Symposium on Giant Virus Biology
Dennis Bamford (Attendee)
17 Nov 2013 → 20 Nov 2013

5th European Congress of Virology
Dennis Bamford (Speaker: Keynote)
11 Sept 2013 → 14 Sept 2013

XXIII Biennial Conference on Phage/Virus Assembly
Dennis Bamford (Attendee)
8 Sept 2013 → 13 Sept 2013

The 2013 Archaea: Ecology, Metabolism, and Molecular Biology Gordon Research Conference
Dennis Bamford (Poster Presentation)
28 Jul 2013 → 2 Aug 2013

ICTV committee meeting
Dennis Bamford (Speaker: Presenter)
14 Jul 2013 → 17 Jul 2013

32nd Annual American Society for Virology
Dennis Bamford (Speaker: Keynote)
20 Jun 2013 → 24 Jun 2013

The XII Spanish National Congress of Virology
Dennis Bamford (Speaker: Presenter)
9 Jun 2013 → 12 Jun 2013

Instruct Biennial Structural Biology Conference 2013
Dennis Bamford (Scientific Committee Member)
22 May 2013 → 24 May 2013

Virology Days 2013
Dennis Bamford (Attendee)
14 Mar 2013 → 15 Mar 2013

European Academy of Microbiology (External organisation)
Dennis Bamford (Member)
2013 → ...

EMBO Meeting on Viruses of Microbes

Dennis Bamford (Speaker: Keynote)

16 Jul 2012

Viruses of microbes EMBO meeting, scientific committee (External organisation)

Dennis Bamford (Member)

16 Jul 2012

5th Monolith Summer Symposium

Dennis Bamford (Speaker: Presenter)

1 Jun 2012

Academy Professor

Dennis Bamford (Recipient)

2012 → 2016

Supervisor of Doctoral thesis

Dennis Bamford (Supervisor)

2012 → 2014

Aquatic Virus Workshop

Dennis Bamford (Speaker: Presenter)

30 Oct 2011

Phage/Virus assembly meeting

Dennis Bamford (Speaker: Presenter)

9 Oct 2011

EU Cost meeting on novel non-transgenic strategies for plant virus control

Dennis Bamford (Speaker: Presenter)

12 Sept 2011

British Scandinavian meeting in microbiology and infection

Dennis Bamford (Speaker: Presenter)

25 May 2011

Viruses of the environment

Dennis Bamford (Speaker: Presenter)

22 Mar 2011

Virology symposium

Dennis Bamford (Speaker: Presenter)

14 Mar 2011

EU ESFRI Instruct (External organisation)

Dennis Bamford (Board member)

2011 → ...

International Committee on Taxonomy of Viruses (External organisation)

Dennis Bamford (Board member)

2011 → ...

3rd Sino-Finn Life Science Forum

Dennis Bamford (Speaker: Presenter)

30 Oct 2010

20th Biocity Symposium
Dennis Bamford (Speaker: Presenter)
20 Aug 2010

3rd Mathematical Virology Workshop
Dennis Bamford (Speaker: Presenter)
16 Aug 2010

An Institute Pasteur Meeting, Scientific committee (External organisation)
Dennis Bamford (Member)
21 Jun 2010 → 25 Jun 2010

Conference on Viruses of Microbes
Dennis Bamford (Speaker: Presenter)
21 Jun 2010

ESF-EMBO Symposium on antiviral applications of RNA interference
Dennis Bamford (Speaker: Presenter)
30 May 2010

INSTRUCT annual meeting
Dennis Bamford (Speaker: Presenter)
29 Apr 2010

Society for General Microbiology, UK annual meeting
Dennis Bamford (Speaker: Presenter)
29 Mar 2010

INSTRUCT workshop on correlative microscopy
Dennis Bamford (Speaker: Presenter)
13 Jan 2010

Co-Supervisor of Doctoral thesis
Dennis Bamford (Co-supervisor)
2010 → 2014

EU ESFRI Instruct (External organisation)
Dennis Bamford (Member)
2010 → ...

Pre-examiner of Doctoral thesis
Dennis Bamford (Pre-examiner)
2010

Colloquium on Genome Structure, Function and Evolution
Dennis Bamford (Speaker: Keynote)
5 Dec 2009

Wuhan University invited seminar
Dennis Bamford (Speaker: Presenter)
27 Nov 2009

Irish higher education authority (External organisation)

Dennis Bamford (Member)

17 Nov 2009 → 19 Nov 2009

EU COST Workshop on Plant Virus Control based on RNA based Vaccines

Dennis Bamford (Speaker: Presenter)

12 Sept 2009

International EU COST training school on dsRNA production for plant virus protection

Dennis Bamford (Member of organizing committee)

7 Sept 2009 → 12 Sept 2009

5th Smögen Summer Symposium on Virology

Dennis Bamford (Speaker: Keynote)

22 Aug 2009

III Workshop on Structural Biology

Dennis Bamford (Speaker: Keynote)

4 Jun 2009

6th International Virus Assembly Symposium

Dennis Bamford (Speaker: Presenter)

3 May 2009

Tieteen päivät 2009 Virusten alku

Dennis Bamford (Speaker: Presenter)

8 Jan 2009

3rd FEMS Congress of European Microbiologists (External organisation)

Dennis Bamford (Member)

2009

European co-operation in science and technology (COST) (External organisation)

Dennis Bamford (Member)

2009 → 2013

1st Sino-Finn Life Science Forum

Dennis Bamford (Speaker: Presenter)

26 Oct 2008

FASEB Conference on Virus Assembly

Dennis Bamford (Speaker: Presenter)

22 Jun 2008

VIZIER/SPINE2 Workshop on Structural Virology

Dennis Bamford (Speaker: Presenter)

14 Jun 2008

EU ESFRI INSTRUCT Working Group (External organisation)

Dennis Bamford (Chair)

2008 → 2009

Member of thesis advisory committee

Dennis Bamford (Member of thesis committee / follow-up group)

2008 → 2014

Supervisor of Doctoral thesis

Dennis Bamford (Supervisor)

2008 → 2012

Murnau Conference on Structural Biology

Dennis Bamford (Speaker: Presenter)

7 Sept 2007

VIZIER/EMBO workshop on RNA viruses: replication, evolution and drug design

Dennis Bamford (Speaker: Presenter)

27 Aug 2007

Gordon conference on Structural, Functional and Evolutionary Genomics

Dennis Bamford (Speaker: Presenter)

29 Jul 2007

Structure-Function Analysis of Viruses

Dennis Bamford (Speaker: Keynote)

31 May 2007

Symposium on Virology

Dennis Bamford (Speaker: Presenter)

12 Apr 2007

EMBL-RNA virus symposium

Dennis Bamford (Speaker: Presenter)

6 Mar 2007

Tieteen päivät 2007 Elämän rajoilla

Dennis Bamford (Speaker: Presenter)

13 Jan 2007

Co-supervisor of doctoral thesis

Dennis Bamford (Co-supervisor)

2007 → 2010

EMBL Hamburg outstation (External organisation)

Dennis Bamford (Board member)

2007

Supervisor of Doctoral thesis

Dennis Bamford (Supervisor)

2007 → 2009

Supervisor of Doctoral thesis

Dennis Bamford (Supervisor)

2007 → 2010

Supervisor of Doctoral thesis

Dennis Bamford (Supervisor)

2007 → 2010

The Wistar Symposium on Virus Structure and Evolution
Dennis Bamford (Speaker: Presenter)
17 Nov 2006

University of Missouri-Kansas City invited seminar
Dennis Bamford (Speaker: Presenter)
15 Nov 2006

9th International Symposium on dsRNA viruses
Dennis Bamford (Speaker: Presenter)
22 Oct 2006

EMBO Workshop on Plant Virology
Dennis Bamford (Speaker: Presenter)
3 Jul 2006

ETH Symposium
Dennis Bamford (Speaker: Presenter)
29 Jun 2006

Structure and Function of Large Molecular Assemblies
Dennis Bamford (Speaker: Presenter)
11 Jun 2006

Aminoff Symposium on Virus Structure
Dennis Bamford (Speaker: Presenter)
8 Jun 2006

Virus Structure and Evolution Meeting
Dennis Bamford (Speaker: Presenter)
27 May 2006

ASM
Dennis Bamford (Speaker: Presenter)
24 May 2006

Baylor College of Medicine invited seminar
Dennis Bamford (Speaker: Presenter)
17 May 2006

University of Alabama invited seminar
Dennis Bamford (Speaker: Presenter)
16 May 2006

Texas/ Evergreen Phage/ Virus Genomics and Ecology Meeting
Dennis Bamford (Speaker: Keynote)
13 May 2006

Virus Assembly Symposium
Dennis Bamford (Speaker: Presenter)
1 May 2006

University of Leeds invited seminar
Dennis Bamford (Speaker: Presenter)
3 Apr 2006

Biocenter days

Dennis Bamford (Speaker: Presenter)
23 Mar 2006

Public Health Research Institute

Dennis Bamford (Speaker: Presenter)
8 Mar 2006

Rockefeller University invited seminar

Dennis Bamford (Speaker: Presenter)
7 Mar 2006

National Institute of Health invited seminar

Dennis Bamford (Speaker: Presenter)
6 Mar 2006

Wuhan University invited seminar

Dennis Bamford (Speaker: Presenter)
16 Feb 2006

Shanghai Institute of Materia Medica

Dennis Bamford (Speaker: Presenter)
9 Feb 2006

Co-supervisor of Doctoral thesis

Dennis Bamford (Supervisor)
2006 → 2010

Director of Finnish Center of Excellence in Virus Research

Dennis Bamford (Recipient)
2006 → 2011

EMBO (External organisation)

Dennis Bamford (Member)
2006 → ...

Journal of General Virology (Journal)

Dennis Bamford (Member of editorial board)
2006 → 2010

Journal of Virology (Journal)

Dennis Bamford (Member of editorial board)
2006 → 2011

Societas biochemica, biophysica et microbiologica Fenniae (External organisation)

Dennis Bamford (Expert member)
2006 → ...

Supervisor of Doctoral thesis

Dennis Bamford (Supervisor)
2006 → 2010

Archives of Virology (Journal)
Dennis Bamford (Reviewer)
2005 → 2010

Arti Foundation (External organisation)
Dennis Bamford (Chair)
2005

Biochemistry (Journal)
Dennis Bamford (Reviewer)
2005 → 2010

Cell (Journal)
Dennis Bamford (Reviewer)
2005 → 2010

EMBO Journal (Journal)
Dennis Bamford (Reviewer)
2005 → 2010

European Journal of Biochemistry (Journal)
Dennis Bamford (Reviewer)
2005 → 2010

FEMS Microbiology Letters (Journal)
Dennis Bamford (Reviewer)
2005 → 2010

Gene (Journal)
Dennis Bamford (Reviewer)
2005 → 2010

Journal of Bacteriology (Journal)
Dennis Bamford (Reviewer)
2005 → 2010

Journal of General Virology (Journal)
Dennis Bamford (Reviewer)
2005 → 2010

Journal of Molecular Biology (Journal)
Dennis Bamford (Reviewer)
2005 → 2010

Journal of Virology (Journal)
Dennis Bamford (Reviewer)
2005 → 2010

Microbiology (Journal)
Dennis Bamford (Reviewer)
2005 → 2010

Molecular Cell (Journal)
Dennis Bamford (Reviewer)
2005 → 2010

Nature (Journal)
Dennis Bamford (Reviewer)
2005 → 2010

Nature Reviews, Microbiology (Journal)
Dennis Bamford (Reviewer)
2005 → 2010

Plasmid (Journal)
Dennis Bamford (Reviewer)
2005 → 2010

Proceedings of the National Academy of Sciences of the United States of America (Journal)
Dennis Bamford (Reviewer)
2005 → 2010

Reviewer (Journal)
Dennis Bamford (Reviewer)
2005 → 2010

RNA (Journal)
Dennis Bamford (Reviewer)
2005 → 2010

Science (Journal)
Dennis Bamford (Reviewer)
2005 → 2010

Supervisor of Doctoral thesis
Dennis Bamford (Supervisor)
2005 → 2008

Virology (Journal)
Dennis Bamford (Reviewer)
2005 → 2010

Artti Foundation (External organisation)
Dennis Bamford (Board member)
2004 → 2005

Faculty of Biosciences, University of Helsinki (External organisation)
Dennis Bamford (Member)
2004 → 2009

Fellowship fond board (Bio- and Natural Sciences), University of Helsinki (External organisation)
Dennis Bamford (Board member)
2004 → 2010

Supervisor of Doctoral thesis
Dennis Bamford (Supervisor)
2004 → 2008

Supervisor of Doctoral thesis

Dennis Bamford (Supervisor)

2003 → 2009

Academy Professor

Dennis Bamford (Recipient)

2002 → 2007

Finnish Academy of Science and Letters (External organisation)

Dennis Bamford (Member)

2002 → ...

Supervisor of Doctoral thesis

Dennis Bamford (Supervisor)

2002 → 2006

Director of Program on Structural Virology a National Center of Excellence

Dennis Bamford (Recipient)

2000 → 2005

Research Group Organization in Molecular Biosciences, University of Helsinki (External organisation)

Dennis Bamford (Chair)

2000 → 2006

UNESCO Associated Center of Excellence (External organisation)

Dennis Bamford (Board member)

2000 → 2005

Viikki Graduate School in Biosciences (External organisation)

Dennis Bamford (Member)

2000 → ...

Societas biochimica, biophysica et microbiologica Fenniae (External organisation)

Dennis Bamford (Chair)

1999 → 2005

Biocentrum Helsinki (External organisation)

Dennis Bamford (Member)

1995 → 2013

American Association of Advancement of Science (External organisation)

Dennis Bamford (Member)

1992 → ...

American Society of Microbiology (External organisation)

Dennis Bamford (Member)

1979 → ...

Societas biochimica, biophysica et microbiologica Fenniae (External organisation)

Dennis Bamford (Member)

1977 → ...

The Scandinavian Association of Geneticists (External organisation)

Dennis Bamford (Member)

1975 → ...

Societas Genetica Fennica (External organisation)
Dennis Bamford (Member)
1974 → ...

Prizes

2005 Prize for scientific innovation, University of Helsinki
Bamford, Dennis H. (Recipient), 2005

Commander of the order of the Finnish Lion
Bamford, Dennis H. (Recipient), 2008

Press/Media

A Mathematical Approach To Virus Classification
Dennis Bamford
02/03/2017
1 item of Media coverage

Kansanterveys-lehti: Mikrobit ja me
Dennis Bamford
01/08/2007
1 Media contribution

Mathematics supports a new way to classify viruses based on structure
Dennis Bamford & Janne Ravanti
22/02/2017 → 27/02/2017
2 items of Media coverage

Mathematics supports a new way to classify viruses based on structure -- ScienceDaily
Dennis Bamford & Janne Ravanti
23/02/2017
1 item of Media coverage

Researchers find new evidence to support structure-based classification system for viruses
Dennis Bamford & Janne Ravanti
23/02/2017 → 24/02/2017
2 items of Media coverage

Virologists investigating novel applications for viruses
Dennis Bamford & Minna Poranen
26/01/2016
2 items of Media coverage

Virologists investigating novel applications for viruses 26 Jan 20161
Dennis Bamford & Minna Poranen
26/01/2016
1 item of Media coverage

YLE Radio 1 Vuoden 2009 Nobelin palkinnot Episode: Kemian Nobel palkinto 2009 ribosomitutkijoille
Dennis Bamford
14/10/2009
1 Media contribution

YLE Radio Suomi Lähikuvassa Dennis Bamford

Dennis Bamford

15/12/2008

1 Media contribution

YLE Teema Lähikuvassa Dennis Bamford

Dennis Bamford

31/08/2007

1 Media contribution

Projects

Center of Excellence in Virus Research (CoE_VIRRES)

Bamford, D. H., Bamford, J., Butcher, S., Oksanen, H. M., Poranen, M., Roine, E., Kainov, D., Tuma, R., Ravantti, J., Huiskonen, J., Jäälinöja, H., Ora, A., Hattula, K., Ziedaite, G., Romanovskaya, A., Lisal, J., Buivydas, A., Redder, P., Domanska, A., Vilen, S., Manole, V., Happonen, L., Seitsonen, J., Liljeroos, L., Suchanova, B., Falck, S., Daugelavicius, R., Golubtsov, A., Yuan, P., Anastasina, M., Karhu, N. J., Koivunen, M., Laurinavicius, S., Wallin, A., Aalto, A. P., Sarin, P., Atanasova, N., Sun, X., Pietilä, M., Krupovic, M., Cvirkaite-Krupovic, V., Kukkaro, P. & Pirttimaa, M.

25/02/2011 → 31/12/2016