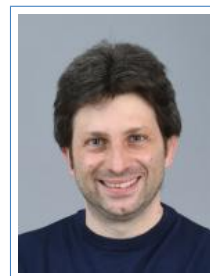


Nicola Segata

Ph.D.

Department CIBIO
University of Trento,
via Sommarive n. 9
38123 Povo (Trento), Italy
☎ +39 0461 285218
✉ nicola.segata@unitn.it
🌐 <http://segatalab.cibio.unitn.it>

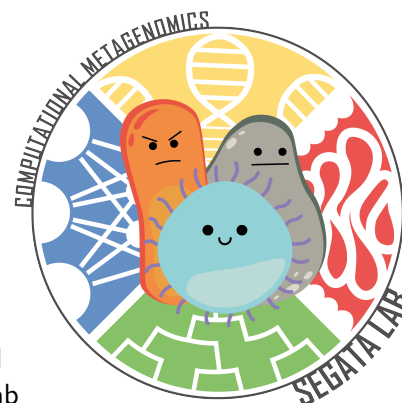


Curriculum Vitae - March 4, 2025

Personal Information

nationality Italian.

research statement I am working in the fields of human microbiome research and computational biology. The Computational Metagenomics Lab <http://segatalab.cibio.unitn.it> I lead at the Dep. CIBIO and at the European Institute of Oncology comprises 11 postdocs, 3 research assistants, 11 Ph.D. students, and several pre-doctoral students. We use experimental metagenomic tools and novel computational approaches to study the diversity of the human microbiome and its cross-talk with the human body in health and disease.



Current positions

- Apr 2021 - now **Full Professor**, Department CIBIO, University of Trento, Italy.
- Nov 2012 - now **Principal Investigator**, Laboratory of Computational Metagenomics, Department CIBIO, University of Trento, Italy.
- Feb 2020 - now **Investigator and Group Leader**, Department of Experimental Oncology, European Institute of Oncology, Milan, Italy.
- Jan 2020 - now **Visiting Professor**, Department of Twin Research, Faculty of Life Sciences & Medicine at King's College London (KCL), London, United Kingdom.



UNIVERSITY
OF TRENTO



Past research positions

- 2018-2021 **Associate Professor**, Department CIBIO, University of Trento, Italy.
- 2013-2017 **Assistant Professor**, Centre for Integrative Biology (CIBIO), University of Trento, Italy.
- Jul 2010 - Oct 2012 **Postdoctoral fellow**, Harvard School of Public Health (HSPH), Biostatistics department, Harvard University, Boston, MA, USA. Mentor: prof. Curtis Huttenhower.
- Jan 2010 - Jun 2010 **Postdoctoral fellow**, Laboratory of Microbial Genomics, Centre for Integrative Biology (CIBIO), University of Trento, Italy. Mentor: prof. Olivier Jousson.

Education

- 2009 **PhD Dissertation**, *Dept. of Information Engineering & Computer Science*, University of Trento.
Discussion of the thesis “Local approaches for fast, scalable and accurate learning with kernels” under the supervision of prof. Enrico Blanzieri.
- 2006 **Master Degree in Computer Science**, *University of Trento*, Grade 110/110 cum laude.
Discussion of the thesis “Beta-binders and π -calculus approaches for quantitative modelling of biological pathways”, under the supervision of prof. C. Priami and prof. E. Blanzieri.
- 2004 **Bachelor Degree in Computer Science**, *University of Trento*, Grade 110/110 cum laude.
Discussion of the thesis “Sistemi di monitoraggio video: il problema dello sfondo in presenza di variazioni globali di illuminazione”, under the supervision of prof. C. Priami and dott. S. Messelodi.

Awards

- 2018 - now **Listed as one of the “Highly Cited Researcher”** by Clarivate Analytics and Web of Science.
- 2023 **Early Career Research Quality Award 2023** by the Rector of University of Trento. The award is given to the research who demonstrated the highest quality of research within University of Trento
- 2023 **Jürgen Manchot Research Professorship for Experimental Infection Medicine 2023** by Heinrich-Heine-University of Düsseldorf, Germany
- 2023 **Joint 2nd place for the Nature Awards Research Group Prize 2023** by Yakult and Nature Portfolio. The prize is given to the Nicola Segata lab (and their network of collaborators)
- 2022 **A bacterial genus named after Prof. Nicola Segata** *Segatella* gen. nov. *Segatella* (*Se.ga.tel'la*. L. fem. dim. suff. -ella, diminutive ending; N.L. fem. n. *Segatella*, has been named in “honour of the contemporary Italian microbial geneticist Nicola Segata who has significantly increased our knowledge of this group of bacteria” by [Hitch et al., *Systematic and Applied Microbiology*, 2022]
- 2020 **Knight of the Order of Merit of the Italian Republic (“Cavaliere della Repubblica”)** appointed by the President of the Italian Republic (n 12382, serie VI, decr. 27/12/2019).
- 2019 **Pharmabiotics 2019 Young Investigators Award (10,000 EUR)** by Institut Merieux and the Pharmabiotic Research Institute.
- 2019 **X Prêmio 2019 “Octavio Frias de Oliveira” (Co-recipient)** awarded by the São Paulo State câncer center and the São Paulo faculty of medicine for the paper [Thomas, Manghi, ... , Segata, *Nature Medicine* 2019].
- 2019 **Invited member of the “Gruppo 2003” association** of the “most influential Italian scientists by citation indexes”.
- 2018 **H.G. Goldman Award (Co-recipient)** by the SIdP for the work by [Ghensi, Manghi, ..., Segata, 2019] on the oral microbiome in peri-implantitis.
- 2017 **Dr. Darwin award (Co-recipient)** by the Italian Society for Evolutionary Biology for the paper [Asnicar, Manara, ... , Segata, *mSystems* 2016].
- 2015 **LEO Pharma Research Foundation Gold Award 2015 (1M DKK, 134k EUR)** awarded by LEO Pharma in association with the European Society for Dermatology. The award is “given to talented and committed young researchers in recognition of their exceptional contribution to science”.
- 2012 **Travel fellowship** awarded by ISCB with grant funds obtained from the NSF-National Science Foundation Bio-Directorate.
- 2012 **IHMC-2012 travel award** from the National Institutes of Health (NIH).

- 2011 **PQG travel fellowship award** from the Program in Quantitative Genomics at the Harvard School of Public Health.
- 2011 **Travel fellowship award** from the International Society for Computational Biology (ISCB) funded by DOE-Department of Energy Office of Science, NSF-National Science Foundation Bio-Directorate, and NIH NIMGS-National Institute of General Medical Sciences.
- 2009 **Best Paper Award** at the 6th International Conference on Machine Learning and Data Mining, for the paper: Nicola Segata, Enrico Blanzieri: "Fast local support vector machines for large datasets".

Teaching

- 2016-now "Computational Microbial Genomics", Master Course, Master in Quantitative and Computational Biology, University of Trento, Trento, Italy
- 2014-2024 "Introduction to Metagenomics", PhD Course, International PhD Program in Biomolecular Sciences, University of Trento, Trento, Italy
- 2013-2015 "High-throughput methodologies 2: data analysis", Master Degree in Cellular and Molecular Biotechnology, University of Trento, Trento, Italy
- Spring 2010 Assistant teacher for the course "Informatica e Principi di Programmazione", Bachelor Degree in Cognitive Science, University of Trento, Rovereto, Italy.
- Fall 2009 Assistant teacher for the course "Data Mining for Biological Data" (teaching language English), Master Degree in Computer Science - Bioinformatics specialization, University of Trento, Trento, Italy
- Fall 2009 Teacher for the additional course "Informatica e Principi di Programmazione", Bachelor Degree in Cognitive Science, University of Trento, Rovereto, Italy.

Grants

- Total funding Overall, I have secured over 14 million € for research in my laboratory since 2013. Funding from commercial contracts ("conto terzi") are not considered nor reported here.
- 2024-2028 **PROSPECT**. Pathways, Risk factors, and mOlecules to Prevent Early-onset Colorectal Tumors. Awarded by Cancer Grand Challenges (Work Package Leader) (748,200 € to N.S.)
- 2023-2028 **DOMINO**. Horizon Europe: Fair, healthy and environmentally-friendly food systems from primary production to consumption HORIZON-CL6-2021-FARM2FORK-01 (Work Package Leader) (1,033,262 € to N.S.)
- 2023-2028 PNRA2022 Linea B. Ministry of University and Research (MUR) (Project coordinator) (269,900 €)
- 2023-2027 **CoDiet**. Horizon Europe: Combatting diet related non-communicable disease through enhanced surveillance HORIZON-CL6-2022-FARM2FORK-01 (Work Package Leader) (464,391 € to N.S.)
- 2023-2026 **PreBiomicsPMT**. European Innovation Council (EIC) Transition (PI) (2,461,900 € to N.S. at PreBiomics)
- 2022-2027 **microTOUCH**. H2020 ERC Consolidator grant (PI) (2,390,000 € to N.S.)
- 2020-2022 EMBO Postdoctoral Fellowship (Scientific Coordinator for the Fellowship to Mireia Valles-Colomer)
- 2020-2023 **IHMCSA**. International Human Microbiome Coordination and Support Action H2020-SC1-2020-Single-Stage-RTD) Grant (Work Package Leader) (161,000 € to N.S.)
- 2020-2022 **PB3P**. ERC Proof of Concept to PreBiomics (150,000 € to N.S.)
- 2019-2024 **ONCOBIOME**. H2020 Better Health and care, economic growth and sustainable health systems H2020-SC1-BHC-2018-2020 Grant (Work Package Leader) (1,561,00 € to N.S.)

- 2019-2021 Simons Foundation Autism Research Initiative - Pilot Award (Co-Investigator) (125,400 \$ to N.S.)
- 2019-2024 U01 award by the National Institutes of Health (NIH) and National Cancer Institute (NCI) (Senior/Key Person) (329,056 \$ to N.S.)
- 2019-2023 **MASTER**. H2020 Sustainable Food Security H2020-SFS-2018-2020 Grant (Work Package Leader) (509,950 € to N.S.)
- 2019-2023 PRIN MIUR (LS6 Sector, Local PI) (148,000 € to N.S.)
- 2019-2024 **VACCIBIOME**. Collaborator/Investigator for the H2020 ERC Advanced Investigator Grant to prof. Guido Grandi (Investigator) (150,000 € to N.S.)
- 2019-2023 Award from the Institut Merieux and the Pharmabiotic Research Institute (10,000 € to N.S.)
- 2018-2022 Italian Ministry of Health 2018, "Ricerca Finalizzata" (Local PI) (90,000 € to N.S.)
- 2018-2020 NIH Sub-award from the Forsyth Institute (105,000 € to N.S.)
- 2017-2021 Italian Ministry of Health 2016, "Ricerca Finalizzata" (Local PI) (90,000 € to N.S.)
- 2017-2022 **MetaPG**. H2020 ERC Starting Investigator grant (PI) (1,500,000 € to N.S.)
- 2017-2022 **MODULATE**. H2020 ERC Starting Investigator Grant to prof. Harry Sokol (Third linked party - Local PI) (150,000 € to N.S.)
- 2016-2018 Eklund Foundation (40,000 € to N.S.)
- 2017-2019 ITI International Team for Implantology Foundation (40,600 € to N.S.)
- 2013-2016 Futuro in Ricerca 2013 (MIUR) (PI) (348,000 € to N.S.)
- 2015-2017 LEO Pharma Research Foundation Gold Prize 2015 (PI) (134,000 € to N.S.)
- 2016-2018 Marie Skłodowska-Curie Individual Fellowships (Scientific Coordinator for the Fellowship to Edoardo Pasolli) (180,277 €)
- 2016-2018 Marie Skłodowska-Curie Individual Fellowships (Scientific Coordinator for the Fellowship to Federica Pinto) (180,277 €)
- 2016-2018 SIdP (PI) (30,000 € to N.S.)
- 2016-2018 Lega Italiana per la Lotta contro i Tumori (PI) (72,000 € to N.S.)
- 2015-2016 Italian Cystic Fibrosis foundation (External Collaboration) (24,000 € to N.S.)
- 2013-2017 FP7 Marie Curie Career Integration Grant (PI) (100,000 € to N.S.)
- 2013-2017 CARITRO - Giovani Ricercatori 2013 (PI) (213,000 € to N.S.)
- 2013-2015 Terme di Comano - Skin Microbiome (PI) (78,000 € to N.S.)
- 2014 UNITN award for reaching the final stage of the ERC Starting Grant (PI)(10,000 € to N.S.)
- 2010-2012 Postdoctoral fellowship at the Harvard School of Public Health, Biostatistics Department, Huttenhower lab, Harvard University, Boston.
- 2010 Postdoctoral research grant at the Laboratory of Microbial Genomics, Centre for Integrative Biology (CIBIO), University of Trento, Italy.
- 2006–2009 PhD research grant at the Department of Information Engineering and Computer Science (XXII cycle), University of Trento, Italy.

(Co)organization of Conferences, Schools, and Workshops

- Since Sep 2021 **The Microbiome Virtual International Forum** <https://www.microbiome-vif.org/> Co-founder.
- Oct 26-28, 2023 **The 4th International World of Microbiome Conference WOM 2023** Sofia, Bulgaria. Co-organizer

Sep 20-23, 2023	EMBO EMBL Symposium on "The Human Microbiome" (third edition), Heidelberg, Germany. Coorganizer with Peer Bork and Manimozhiyan Arumugam
Apr 28-30, 2022	The 3th International World of Microbiome Conference WOM 2022 Sofia, Bulgaria. Coorganizer
Jul 23, 2019	MICROBIOME C.O.S.I. day at ISMB 2019 , Basel, Switzerland. Coorganizer and Co-chair
Oct 10, 2018	Microbiota: tra ricerca di base e applicazioni cliniche , Comano, Italy. Coorganizer
Sep 16-19, 2018	EMBO EMBL Symposium on "The Human Microbiome" (second edition), Heidelberg, Germany. Coorganizer with Peer Bork and Manimozhiyan Arumugam
Oct 21, 2017	Microbiota: le nuove frontiere della medicina , Comano, Italy. Coorganizer
Sep 24, 2016	Microbiota nella medicina del futuro , Comano, Italy. Coorganizer
Oct 03, 2015	Microbiota: salute, terme e alimentazione , Comano, Italy. Coorganizer
Sep 08-11, 2014	Biology Summer School: Systems, Synthetic and Semantic Biology , Trento, Italy. Coorganizer
Feb 15, 2014	Il microbiota: interazione tra microrganismi e corpo umano , Comano, Italy. Coorganizer

Other collaborations and activities

2018 - now	Co-founder and scientific advisor of PreBiomics s.r.l. on the use of the plaque microbiome for oral health, http://www.prebiomics.com/
2017 - now	Scientific consultant for ZOE on the use of gut metagenomics for personalized nutrition, https://joinzoe.com/
as of 2024	In the Scientific Advisor Board of PreBiomics, ZOE, Freya Biosciences, Ferments du Futur (FdF)
as of 2024	Consultant for Roche, Alia Therapeutics, Janssen R&D
2020 - 2023	In the Scientific Advisor Board of YSOPIA Bioscience

Trainees with Tenure-track academic or research positions

Paolo Manghi	Ph.D. Student and Postdoctoral fellow in the lab from 2017 to 2024, now tenured scientist at Fondazione Edmund Mach, San Michele (TN), Italy
Aitor Blanco Miguez	Postdoctoral fellow in the lab from 2019 to 2023, now head of the bioinformatic group at PreBiomic, Mattarello (TN), Italy
Mireia Valles-Colomer	Postdoctoral fellow in the lab from 2020 to 2023, now tenure-track group leader at the MELIS department of the University Pompeu Fabra, Barcelona, Spain
Sabrina Tamburini	Research Scientist in the IEO lab from 2020 to 2022, now tenure-track assistant professor (RTDb) at University of Venice
Edoardo Pasoli	Postdoctoral fellow in the lab from 2015 to 2018, now associate professor at University of Naples Federico II
Adrian Tett	Postdoctoral fellow in the lab from 2014 to 2020, now tenure-track assistant professor at University of Vienna
Matthias Scholz	Postdoctoral fellow in the lab from 2013 to 2016, now tenured senior scientist at Fondazione Edmund Mach

Editorial, Reviewer, Teaching, and Scientific Committee Activity

2023-now	Member of the Commission for the national scientific habilitation in Genetics (Commissione per l'abilitazione scientifica nazionale per il settore concorsuale 05/I1)
----------	---

2022-now	Member of the Scientific Advisory Board of the APC Microbiome Ireland
2022-now	Member of the Ph.D. School Committee in “Systems Medicine” at the University of Milan (DOT1315598)
2021-now	Associate Editor for “npj Biofilms and Microbiomes”
2021-now	Invited Editor for “eLife”
2020-2023	Chair of the Scientific Committee of the “World of Microbiome” conference series
2020-2021	Scientific Committee Member for the Pharmabiotics 2021 Conference and Partnering
2020-now	Editorial Advisory Board Member for Cell Reports Medicine
2019-now	Editorial Board Member for Genome Biology
2018-2023	Editorial Board Member for mSystems by the American Society for Microbiology
2018-2024	Member of the “Comitato Tecnico Sanitario” for the Italian Ministry of Health
2017-now	Member of the Ph.D. School Committee in “Biomolecular Sciences” at the University of Trento (DOT1362008)
2017-now	Associate Editor for PLOS Computational Biology
2016-now	Member of the International Scientific Committee of the Biocodex Microbiota Foundation
2015-2023	Editor for mSystems by ASM
2014-now	Associate Editor for BMC Nutrition
2018-2019	Associate Editor for Frontiers in Microbiology
2014	Invited Editor for mBio

Talks, Invited Talks, Tutorials, and Seminars (three selected talk per year)

I am regularly invited to give Keynote Lectures, Invited Talks, and Seminars. Since 2010 I gave over 260 such talks, and over 50 in 2024 alone

Dec 03, 2024	Host-microbiome coevolution: from understanding the past to medical applications. Keynote lecture at the Accademia dei Lincei conference “Host-Microbiome Co-Evolution: Symbioses, Infection & Autophagy”, Accademia Nazionale dei Lincei, Rome, Italy
Apr 20, 2024	Harnessing the human microbiome for personalised health. Invited Keynote Lecture at the 34th Congress of the European Society of Clinical Microbiology and Infectious Diseases (ESCMID Global 2024), Barcelona, Spain
Apr 17, 2024	Metagenomics of the human microbiome: key clinical applications in 2022. Invited Talk at the “Precision Nutrition Forum 2024”, Copenhagen, Denmark.
Dec 07, 2023	Human Metagenomics: from fundamental research to precision medicine and nutrition. Invited Jürgen Manchot Research Professorship keynote talk, Heinrich Heine University Düsseldorf, Düsseldorf, Germany.
Nov 17, 2023	Studying the human microbiome. Invited Seminar at the “Science for Peace and Health” Conference, Milan, Italy.
Jul 24, 2023	Computational metagenomics to mine the hidden diversity of the human microbiome. Invited Keynote Presentation for the Microbiome COSI at “ISMB/ECCB 2023”, Lyon, France.
Apr 30, 2022	Unknowns and strain-level profiling of the oral microbiome. Invited Keynote Talk at “World of Microbiome 2022”, Vienna, Austria.
Apr 12, 2022	Metagenomics of the human microbiome: key clinical applications in 2022. Invited Seminar for the Eric Littmann Lecture at University of Chicago.
Mar 03, 2022	Large-scale metagenomic profiling of the hidden diversity of the human microbiome. Invited Virtual Seminar for the “JAX-GM Distinguished Seminar Series”.

- Oct 28, 2021 **Toward deciphering the personalized links between the human microbiome, diet, and host health.** Invited remote keynote talk at the “London Microbiome Meeting 2021”
- Jul 09, 2021 **The unexplored diversity of the gut microbiome: how can we profile yeasts and protozoa from metagenomics?.** Invited remotod talk at the “31st European Congress of Clinical Microbiology & Infectious Diseases (ECCMID2021)”
- Jun 27, 2021 **Mining and Profiling the Hidden Diversity of the Human Microbiome.** Invited remote talk at the “8th International Human Microbiome Consortium Congress”, Barcelona, Spain
- Jun 02, 2020 **The hidden human microbiome diversity and personalized host-microbiome interaction.** Invited remote plenary talk at Nutrition 2020 by the American Society for Nutrition
- Feb 07, 2020 **The hidden human microbiome diversity and personalized host-microbiome interaction.** Invited Plenary Talk at the “MicrobiotaMi 2020”, Milan, Italy
- Jan 23, 2020 **Exploring the hidden diversity and transmission patterns of the human gut microbiome.** Invited Keynote Talk at the conference “13th Finnish Gut Day”, Helsinki, Finland
- Oct 18, 2019 **Strain-resolved large-scale metagenomics.** Invited Keynote Talk at the 5th International Conference on Clinical Metagenomics, Geneva, Switzerland
- Mar 25, 2019 **Uncovering extensive species and strain-level diversity in the human microbiome.** Invited Talk at the “Revolutionizing Next-Generation Sequencing (3rd edition)”, Antwerpen, Belgium
- Feb 21, 2019 **The human microbiome and metagenomes.** Invited Talk at the “Accademia Nazionale dei Lincei”, Rome, Italy
- Jun 21, 2018 **Transmission and population biology of members of the human microbiome.** Invited Talk at “The Barcelona Debates on the Human Microbiome: From Microbes to Medicines”, Barcelona, Spain
- Jun 08, 2018 **Large-scale strain-resolved comparative metagenomics for the human microbiome.** Invited Seminar at the Science for Life Laboratory (SciLifeLab), Stockholm, Sweden
- Feb 22, 2018 **Strain and gene-level metagenomic profiling to unravel microbial risk factors for colorectal cancer.** Invited Talk at the Gustave Roussy Cancer Center, Paris, France
- Sep 13, 2017 **Shotgun metagenomics with strain-level resolution: tools and clinical applications.** Invited Talk at the “EMBL-EBI Industry Programme Workshop on The Human Microbiome: challenges and opportunities for novel therapeutics”, EMBL-EBI, London, United Kingdom
- Jun 05, 2017 **Microbiome meta-analysis and microbial strain profiling using thousands of metagenomic samples.** Invited Plenary Talk at the ASM Microbe 2017, New Orleans, Louisiana, USA
- May 04, 2017 **Large-scale strain-level population genomics of the human microbiome.** Invited Seminar at Institute of Food Research (IFR), Norwich Research Park, Norwich, United Kingdom
- Oct 18, 2016 **Strain-level population structure and genetic diversity of the human microbiome.** Invited Plenary Seminar at the San Raffaele Scientific Institute, Milan, Italy
- Jul 06, 2016 **Uncovering the diversity of NTM: the computational (meta)genomic approach.** Invited Keynote Talk at “The 37th Annual Congress of the European Society of Mycobacteriology”, Catania, Italy
- Jul 01, 2016 **Strain-level microbial epidemiology and population genomics from shotgun metagenomics.** Invited Talk at “The Barcelona Debates on the Human Microbiome: From Microbes to Medicines”, Barcelona, Spain
- Oct 08, 2015 **Strain-level microbial comparative genomics using shotgun metagenomics.** Invited Keynote talk at “RECOMB Comparative Genomics 2015”, Frankfurt, Germany
- Sep 10, 2015 **Metagenomics of the Skin: Results and Perspectives on our Microbial Interface.** Gold Prize Winner talk at the “45th Annual Meeting of the European Society for Dermatological Research”, Rotterdam, The Netherlands

- Apr 01, 2015 **Pangenome-based, meta'omic analysis highlights association of E. coli accessory gene content with risk of necrotizing enterocolitis in a cohort of pre-term infants.** Talk at the 5th International Human Microbiome Congress - IHMC Congress, Luxembourg City, Luxembourg
- Sep 06, 2014 **Machine learning challenges in computational meta'omics.** Invited keynote talk at "Eighth International Workshop on Machine Learning in Systems Biology", Strasbourg, France
- Jun 11, 2014 **Strain-level microbiome characterization with shotgun metagenomics.** Invited Talk at "SocBiN Bioinformatics 2014", Oslo, Norway
- Feb 15, 2014 **The human microbiome in health and disease.** Invited Talk at the "Microbiota", Trento, IT
- Oct 28, 2013 **Computational shotgun metagenomics for microbiome studies.** Invited Talk at the "8th CeBiTec Symposium: The Genomics Revolution and its Impact on Future Biotechnology", Bielefeld University, Bielefeld, DE
- Jun 17, 2013 **Computational Marker-based Shotgun Metagenomics for Accurate Microbiome Studies.** "Next Generation Sequencing Data Congress", CBI Conference Centre, London, UK
- May 12, 2013 **Automating and improving taxonomic assignment with a high-resolution microbial phylogeny for microbiome studies.** Cell Symposia: Microbiome and Host Health, Lisbon, Portugal
- Nov 23, 2012 **Integrative computational methods for shotgun metagenomics.** "With a little help from your friends: tools and strategies for analysing microbiome sequence data", Glasgow Polyomics and University of Glasgow, Glasgow, UK
- Oct 08, 2012 **Computational methods for shotgun metagenomics.** Bertinoro Computational Biology 2012, Bertinoro, Italy
- Jul 16, 2012 **Fast and accurate metagenomic profiling of microbial community composition using unique clade-specific marker genes.** 20th Annual International Conference on Intelligent Systems for Molecular Biology, Long Beach, CA, USA
- Sep 22, 2011 **Microbial community function and biomarker discovery in the human microbiome.** Beyond the Genome 2011, Washington DC, USA
- Jul 17, 2011 **Metagenomic biomarker discovery and the human microbiome.** 19th Annual International Conference on Intelligent Systems for Molecular Biology, Vienna, Austria
- Feb 23, 2011 **Metagenomic biomarker discovery and the human microbiome.** Seminar Series: The Microbial Systems (and Beyond) Seminar. Department of Civil & Environmental Engineering, Massachusetts Institute of Technology (MIT), Boston, MA, USA

Publications

H-index	97 (Google Scholar), 83 (Scopus)
i10-index	202 (Google Scholar), 177 (Scopus)
# citations	>95,000 (Google Scholar), >68,000 (Scopus)

15 most representative papers as last and corresponding author since 2021

- [1] Gloria Fackelmann, Paolo Manghi, Niccolò Carlino, Vitor Heidrich, Gianmarco Piccinno, Liviana Ricci, Elisa Piperni, Alberto Arrè, Elco Bakker, Alice C. Creedon, Lucy Francis, Joan Capdevila Pujol, Richard Davies, Jonathan Wolf, Kate M. Bermingham, Sarah E. Berry, Tim D. Spector, Francesco Asnicar, and Nicola Segata. Gut microbiome signatures of vegan, vegetarian and omnivore diets and associated health outcomes across 21,561 individuals. **Nature Microbiology**, 10:41–52, 2025.
- [2] Kate M. Bermingham, Inbar Linenberg, Lorenzo Polidori, Francesco Asnicar, Alberto Arrè, Jonathan Wolf, Fatema Badri, Hannah Bernard, Joan Capdevila, William J. Bulsiewicz, Christopher D. Gardner, Jose M. Ordoas, Richard Davies, George Hadjigeorgiou, Wendy L. Hall, Linda M. Delahanty, Ana M. Valdes, Nicola Segata*, Tim D. Spector*, and Sarah E. Berry*. [Effects of a personalized nutrition program on cardiometabolic health: a randomized controlled trial](#). **Nature Medicine**, 30:1888–1897,

2024.

- [3] Niccolò Carlino, Aitor Blanco-Míguez, Michal Punčochář, Claudia Mengoni, Federica Pinto, Alessia Tatti, Paolo Manghi, Federica Armanini, Michele Avagliano, Coral Barcenilla, Samuel Breselge, Raul Cabrera-Rubio, Inés Calvete-Torre, Mairéad Coakley, José F. Cobo-Díaz, Francesca De Filippis, Hrituraj Dey, John Leech, Eline S. Klaassens, Stephen Knobloch, Dominic O'Neil, Narciso M. Quijada, Carlos Sabater, Sigurlaug Skírnisdóttir, Vincenzo Valentino, Liam Walsh, MASTER EU Consortium, Avelino Alvarez-Ordóñez, Francesco Asnicar, Gloria Fackelmann, Vitor Heidrich, Abelardo Margolles, Viggó Thór Marteinsson, Omar Rota Stabelli, Martin Wagner, Danilo Ercolini, Paul D. Cotter, Nicola Segata*, and Edoardo Pasolli*. [Unexplored microbial diversity from 2,500 food metagenomes and links with the human microbiome](#). **Cell**, 187:5775–5795, 2024.
- [4] Léonard Dubois, Mireia Valles-Colomer, Alise Ponsero, Otto Helve, Sture Andersson, Kaija Leena Kolho, Francesco Asnicar, Katri Korpela, Anne Salonen, Nicola Segata*, and Willem M. de Vos*. [Paternal and induced gut microbiota seeding complement mother-to-infant transmission](#). **Cell Host and Microbe**, 32:1011–1024.e4, 2024.
- [5] Paolo Manghi, Amrisha Bhosle, Kai Wang, Roberta Marconi, Marta Selma-Royo, Liviana Ricci, Francesco Asnicar, Davide Golzato, Wenjie Ma, Dong Hang, Kelsey N. Thompson, Eric A. Franzosa, Amir Nabinejad, Sabrina Tamburini, Eric B. Rimm, Wendy S. Garrett, Qi Sun, Andrew T. Chan, Mireia Valles-Colomer, Manimozhiyan Arumugam, Kate M. Bermingham, Francesca Giordano, Richard Davies, George Hadjigeorgiou, Jonathan Wolf, Till Strowig, Sarah E. Berry, Curtis Huttenhower, Tim D. Spector, Nicola Segata*, and Mingyang Song*. [Coffee consumption is associated with intestinal *Lawsonibacter asaccharolyticus* abundance and prevalence across multiple cohorts](#). **Nature Microbiology**, 9:3120–3134, 2024.
- [6] Eleonora Pedrazzoli, Michele Demozzi, Elisabetta Visentin, Matteo Ciciani, Ilaria Bonuzzi, Laura Pezzè, Lorenzo Lucchetta, Giulia Maule, Simone Amistadi, Federica Esposito, Mariangela Lupo, Annarita Miccio, Alberto Auricchio, Antonio Casini, Nicola Segata*, and Anna Cereseto*. [CoCas9 is a compact nuclease from the human microbiome for efficient and precise genome editing](#). **Nature Communications**, 15, 2024.
- [7] Elisa Piperni, Long H. Nguyen, Paolo Manghi, Hanseul Kim, Edoardo Pasolli, Sergio Andreu-Sánchez, Alberto Arrè, Kate M. Bermingham, Aitor Blanco-Míguez, Serena Manara, Mireia Valles-Colomer, Elco Bakker, Fabio Busonero, Richard Davies, Edoardo Fiorillo, Francesca Giordano, George Hadjigeorgiou, Emily R. Leeming, Monia Lobina, Marco Masala, Andrea Maschio, Lauren J. McIver, Mauro Pala, Maristella Pitzalis, Jonathan Wolf, Jingyuan Fu, Alexandra Zhernakova, Simone M. Cacciò, Francesco Cucca, Sarah E. Berry, Danilo Ercolini, Andrew T. Chan, Curtis Huttenhower, Tim D. Spector, Nicola Segata*, and Francesco Asnicar*. [Intestinal Blastocystis is linked to healthier diets and more favorable cardiometabolic outcomes in 56,989 individuals from 32 countries](#). **Cell**, 187:4554–4570, 2024.
- [8] Marta Selma-Royo, Léonard Dubois, Serena Manara, Federica Armanini, Raúl Cabrera-Rubio, Mireia Valles-Colomer, Sonia González, Anna Parra-Llorca, Ramon Ecuriet, Lars Bode, Cecilia Martínez-Costa, Nicola Segata*, and Maria Carmen Collado*. [Birthmode and environment-dependent microbiota transmission dynamics are complemented by breastfeeding during the first year](#). **Cell Host and Microbe**, 32:996–1010.e4, 2024.
- [9] Aitor Blanco-Míguez, Francesco Beghini, Fabio Cumbo, Lauren J. McIver, Kelsey N. Thompson, Moreno Zolfo, Paolo Manghi, Leonard Dubois, Kun D. Huang, Andrew Maltez Thomas, William A. Nickols, Gianmarco Piccinno, Elisa Piperni, Michal Punčochář, Mireia Valles-Colomer, Adrian Tett, Francesca Giordano, Richard Davies, Jonathan Wolf, Sarah E. Berry, Tim D. Spector, Eric A. Franzosa, Edoardo Pasolli, Francesco Asnicar, Curtis Huttenhower, and Nicola Segata. [Extending and improving metagenomic taxonomic profiling with uncharacterized species using MetaPhlAn 4](#). **Nature Biotechnology**, 41:1633–1644, 2023.
- [10] Aitor Blanco-Míguez, Eric J.C. Gálvez, Edoardo Pasolli, Francesca De Filippis, Lena Amend, Kun D. Huang, Paolo Manghi, Till Robin Lesker, Thomas Riedel, Linda Cova, Michal Punčochář, Andrew Maltez Thomas, Mireia Valles-Colomer, Isabel Schober, Thomas C.A. Hitch, Thomas Clavel, Sarah E. Berry, Richard Davies, Jonathan Wolf, Tim D. Spector, Jörg Overmann, Adrian Tett, Danilo Ercolini, Nicola Segata*, and Till Strowig*. [Extension of the Segatella copri complex to 13 species with distinct large extrachromosomal elements and associations with host conditions](#). **Cell Host & Microbe**, 31:1804–1819.e9, 2023.

- [11] Mireia Valles-Colomer, Aitor Blanco-Míguez, Paolo Manghi, Francesco Asnicar, Leonard Dubois, Davide Golzato, Federica Armanini, Fabio Cumbo, Kun D Huang, Serena Manara, Giulia Masetti, Federica Pinto, Elisa Piperni, Michal Punčochář, Liviana Ricci, Moreno Zolfo, Olivia Farrant, Adriana Goncalves, Marta Selma-Royo, Ana G Binetti, Jimmy E Becerra, Bei Han, John Lusingu, John Amuasi, Loredana Amoroso, Alessia Visconti, Claire M Steves, Mario Falchi, Michele Filosi, Adrian Tett, Anna Last, Qian Xu, Nan Qin, Huanlong Qin, Jürgen May, Daniel Eibach, Maria Valeria Corrias, Mirco Ponzoni, Edoardo Pasolli, Tim D Spector, Enrico Domenici, Maria Carmen Collado, and Nicola Segata. [The person-to-person transmission landscape of the gut and oral microbiomes](#). **Nature**, 614:125–135, 2023.
- [12] Gianluca Ianiro, Michal Punčochář, Nicolai Karcher, Serena Porcari, Federica Armanini, Francesco Asnicar, Francesco Beghini, Aitor Blanco-Míguez, Fabio Cumbo, Paolo Manghi, Federica Pinto, Luca Massucci, Gianluca Quaranta, Silvia De Giorgi, Giusi Desirè Sciumè, Stefano Bibbò, Federica Del Chierico, Lorenza Putignani, Maurizio Sanguinetti, Antonio Gasbarrini, Mireia Valles-Colomer, Giovanni Cammarota, and Nicola Segata. [Variability of strain engraftment and predictability of microbiome composition after fecal microbiota transplantation across different diseases](#). **Nature Medicine**, 28:1913–1923, 2022.
- [13] Karla Lee, Andrew Thomas, Laura Bolte, Johannes Björk, Laura Kist de Ruijter, Federica Armanini, Francesco Asnicar, Ruth Board, Neus Calbet-Llopart, Lisa Derosa, Nathalie Dhomen, Kelly Brooks, Mark Harland, Mark Harries, Emily Leeming, Paul Lorigan, Paolo Manghi, Richard Marais, Julia Newton-Bishop, Luigi Nezi, Miriam Potrony, Susana Puig, Patricio Serra-Bellver, Heather Shaw, Sara Valpione, Amrita Vijay, Levi Waldron, Laurence Zitvogel, Elisabeth de Vries, Paul Nathan, Rudolf Fehrmann, Veronique Bataille, Geke Hospers, Tim Spector, Rinse Weersma, and Nicola Segata. [Cross-cohort gut microbiome associations with immune checkpoint inhibitor response in advanced melanoma](#). **Nature Medicine**, 28:534–544, 2022. [I.F. 53.44].
- [14] Francesco Asnicar, Sarah E Berry, Ana M Valdes, Long H Nguyen, Gianmarco Piccinno, David A Drew, Emily Leeming, Rachel Gibson, Caroline Le Roy, Haya Al Khatib, Lucy Francis, Mohsen Mazidi, Olaz Mompeo, Mireia Valles-Colomer, Adrian Tett, Francesco Beghini, Leonard Dubois, Davide Bazzani, Andrew Maltez Thomas, Chloe Mirzayi, Asya Khleborodova, Sehyun Oh, Rachel Hine, Christopher Bonnet, Joan Capdevila Pujol, Serge Danzanvilliers, Francesca Giordano, Ludwig Geistlinger, Levi Waldron, Richard Davies, George Hadjigeorgiou, Jonathan Wolf, Jose M Ordovas, Christopher D Gardner, Paul W Franks, Andrew T Chan, Curtis Huttenhower, Tim D Spector, and Nicola Segata. [Microbiome connections with host metabolism and habitual diet from 1098 deeply phenotyped individuals](#). **Nature Medicine**, 27:321–332, 2021. [I.F. 53.44].
- [15] Francesco Beghini, Lauren J. McIver, Aitor Blanco-Míguez, Leonard Dubois, Francesco Asnicar, Sagan Maharjan, Ana Mailyan, Andrew Maltez Thomas, Paolo Manghi, Mireia Valles-Colomer, George Weingart, Yancong Zhang, Moreno Zolfo, Curtis Huttenhower, Eric A. Franzosa, and Nicola Segata. [Integrating taxonomic, functional, and strain-level profiling of diverse microbial communities with bioBakery 3](#). **eLife**, 10:1–42, 2021. [I.F. 8.14].

[Representative review papers](#)

- [1] Francesco Asnicar, Andrew Maltez Thomas, Andrea Passerini, Levi Waldron, and Nicola Segata. [Machine learning for microbiologists](#). **Nature Reviews Microbiology**, 22:191–205, 2024.
- [2] Mireia Valles-Colomer, Cristina Menni, Sarah E. Berry, Ana M. Valdes, Tim D. Spector, and Nicola Segata. [Cardiometabolic health, diet and the gut microbiome: a meta-omics perspective](#), 2023.
- [3] Adrian Tett, Edoardo Pasolli, Giulia Masetti, Danilo Ercolini, and Nicola Segata. [Prevotella diversity, niches and interactions with the human host](#). **Nature Reviews Microbiology**, 19:585–599, 2021. [I.F. 34.21].
- [4] Christopher Quince, Jared T Simpson, Alan W Walker, Nicholas J Loman, and Nicola Segata. [Shotgun metagenomics, from sampling to analysis](#). **Nature Biotechnology**, 35:833–844, 2017. [I.F. 41.67].

[All Papers \(titles are web links\)](#)

- [1] Mattia Ballerini, Serena Galiè, Punit Tyagi, Carlotta Catozzi, Hariam Raji, Amir Nabinejad, Angeli D.G. Macandog, Alessandro Cordiale, Bianca Ionela Slivinschi, Karol K. Kugiejko, Martina Freisa, Paola Occhetta, Jennifer A. Wargo, Pier F. Ferrucci, Emilia Cocorocchio, Nicola Segata, Andrea Vignati, Andrey

- Morgun, Michela Deleidi, Teresa Manzo, Marco Rasponi, and Luigi Nezi. A gut-on-a-chip incorporating human faecal samples and peristalsis predicts responses to immune checkpoint inhibitors for melanoma. **Nature Biomedical Engineering**, 2025.
- [2] Gloria Fackelmann, Paolo Manghi, Niccolò Carlino, Vitor Heidrich, Gianmarco Piccinno, Liviana Ricci, Elisa Piperni, Alberto Arrè, Elco Bakker, Alice C. Creedon, Lucy Francis, Joan Capdevila Pujol, Richard Davies, Jonathan Wolf, Kate M. Bermingham, Sarah E. Berry, Tim D. Spector, Francesco Asnicar, and Nicola Segata. Gut microbiome signatures of vegan, vegetarian and omnivore diets and associated health outcomes across 21,561 individuals. **Nature Microbiology**, 10:41–52, 2025.
 - [3] Romualdo M. Filho, Claudia Mengoni, Julia S. Bruno, Eduardo R. Fregnani, Nicola Segata, Anamaria A. Camargo, and Vitor Heidrich. [Metagenome-assembled genomes from irradiated human dental plaque](#). **Microbiology Resource Announcements**, 14, 2025.
 - [4] Vitor Heidrich, Gloria Fackelmann, Milka Malesevic, Federica Armanini, Hrituraj Dey, Claudia Mengoni, Nemanja Stanisavljevic, Goran Vukotic, and Nicola Segata. [Newly identified species from the dog dental plaque microbiome highlight little overlap with humans](#). **npj Biofilms and Microbiomes**, 11:30, 2025.
 - [5] Raphaëla Joos, Katy Boucher, Aonghus Lavelle, Manimozhiyan Arumugam, Martin J Blaser, Marcus J Claesson, Gerard Clarke, Paul D Cotter, Luisa De Sordi, Maria G Dominguez-Bello, Bas E Dutilh, Stanislav D Ehrlich, Tarini Shankar Ghosh, Colin Hill, Christophe Junot, Leo Lahti, Trevor D Lawley, Tine R Licht, Emmanuelle Maguin, Thulani P Makhallanyane, Julian R Marchesi, Jelle Matthijnsens, Jeroen Raes, Jacques Ravel, Anne Salonen, Pauline D Scanlan, Andrey Shkoporov, Catherine Stanton, Ines Thiele, Igor Tolstoy, Jens Walter, Bo Yang, Natalia Yutin, Alexandra Zhernakova, Hub Zwart, Human Microbiome Action Consortium, Joël Doré, and R Paul Ross. [Examining the healthy human microbiome concept](#). **Nature reviews. Microbiology**, 23:192–205, 2025.
 - [6] Fuyong Li, Anissa M Armet, Katri Korpela, Junhong Liu, Rodrigo Margain Quevedo, Francesco Asnicar, Benjamin Seethaler, Tianna B S Rusnak, Janis L Cole, Zhihong Zhang, Shuang Zhao, Xiaohang Wang, Adele Gagnon, Edward C Deehan, João F Mota, Jeffrey A Bakal, Russell Greiner, Dan Knights, Nicola Segata, Stephan C Bischoff, Laurie Mereu, Andrea M Haqq, Catherine J Field, Liang Li, Carla M Prado, and Jens Walter. [Cardiometabolic benefits of a non-industrialized-type diet are linked to gut microbiome modulation](#). **Cell**, 2025.
 - [7] Serena Porcari, Benjamin H. Mullish, Francesco Asnicar, Siew C. Ng, Liping Zhao, Richard Hansen, Paul W. O'Toole, Jeroen Raes, Georgina Hold, Lorenza Putignani, Christian Lodberg Hvas, Georg Zeller, Omry Koren, Hein Tun, Mireia Valles-Colomer, Maria Carmen Collado, Monika Fischer, Jessica Allegretti, Tariq Iqbal, Benoit Chassaing, Josbert Keller, Simon Mark Baunwall, Maria Abreu, Giovanni Barbara, Faming Zhang, Francesca Romana Ponziani, Sam P. Costello, Sudarshan Paramsothy, Dina Kao, Colleen Kelly, Juozas Kupcinskas, Ilan Youngster, Francesco Franceschi, Sahil Khanna, Maria Vehreschild, Alexander Link, Flavio De Maio, Edoardo Pasolli, Aitor Blanco Miguez, Patrizia Brigidi, Brunella Posteraro, Franco Scaldaferri, Mirjana Rajilic Stojanovic, Francis Megraud, Peter Malfertheiner, Luca Masucci, Manimozhiyan Arumugam, Nadeem Kaakoush, Eran Segal, Jasmohan Bajaj, Rupert Leong, John Cryan, Rinse K. Weersma, Robert Knight, Francisco Guarner, Fergus Shanahan, Patrice D. Cani, Eran Elinav, Maurizio Sanguinetti, Willem M. de Vos, Emad El-Omar, Joel Doré, Julian Marchesi, Herbert Tilg, Harry Sokol, Nicola Segata, Giovanni Cammarota, Antonio Gasbarrini, and Gianluca Ianiro. International consensus statement on microbiome testing in clinical practice. **The Lancet Gastroenterology and Hepatology**, 2025.
 - [8] Martha A. Zepeda-Rivera, Yannick Eisele, Alexander Baryames, Hanrui Wu, Claudia Mengoni, Gianmarco Piccinno, Elsa F. McMahon, Kaitlyn D. LaCourse, Dakota S. Jones, Hans Hauner, Samuel S. Minot, Nicola Segata, Floyd E. Dewhirst, Christopher D. Johnston, and Susan Bullman. *Fusobacterium sphaericum* sp. nov., isolated from a human colon tumor adheres to colonic epithelial cells and induces il-8 secretion. **Gut Microbes**, 17, 2025.
 - [9] Francesco Asnicar, Andrew Maltez Thomas, Andrea Passerini, Levi Waldron, and Nicola Segata. [Machine learning for microbiologists](#). **Nature Reviews Microbiology**, 22:191–205, 2024.
 - [10] Coral Barcenilla, José F. Cobo-Díaz, Alba Puente, Vincenzo Valentino, Francesca De Filippis, Danilo Ercolini, Niccolò Carlino, Federica Pinto, Nicola Segata, Miguel Prieto, Mercedes López, and Avelino Alvarez-Ordóñez. [In-depth characterization of food and environmental microbiomes across different meat processing plants](#). **Microbiome**, 12:199, 2024.
 - [11] Davide Bazzani, Vitor Heidrich, Paolo Manghi, Aitor Blanco-Miguez, Francesco Asnicar, Federica Armanini, Sara Cavaliere, Alberto Bertelle, Federico Dell'Acqua, Ester Dellasega, Romina Waldner, Daniela

- Vicentini, Mattia Bolzan, Cristiano Tomasi, Nicola Segata*, Edoardo Pasolli*, and Paolo Ghensi*. [Favorable subgingival plaque microbiome shifts are associated with clinical treatment for peri-implant diseases.](#) **npj Biofilms and Microbiomes**, 10, 2024.
- [12] Kate M. Bermingham, Inbar Linenberg, Lorenzo Polidori, Francesco Asnicar, Alberto Arrè, Jonathan Wolf, Fatema Badri, Hannah Bernard, Joan Capdevila, William J. Bulsiewicz, Christopher D. Gardner, Jose M. Ordovas, Richard Davies, George Hadjigeorgiou, Wendy L. Hall, Linda M. Delahanty, Ana M. Valdes, Nicola Segata*, Tim D. Spector*, and Sarah E. Berry*. [Effects of a personalized nutrition program on cardiometabolic health: a randomized controlled trial.](#) **Nature Medicine**, 30:1888–1897, 2024.
- [13] Johannes R. Björk, Laura A. Bolte, Andrew Maltez Thomas, Karla A. Lee, Niccolo Rossi, Thijs T. Wind, Lotte M. Smit, Federica Armanini, Francesco Asnicar, Aitor Blanco-Míguez, Ruth Board, Neus Calbet-Llopart, Lisa Derosa, Nathalie Dhomen, Kelly Brooks, Mark Harland, Mark Harries, Paul Lorigan, Paolo Manghi, Richard Marais, Julia Newton-Bishop, Luigi Nezi, Federica Pinto, Miriam Potrony, Susana Puig, Patricio Serra-Bellver, Heather M. Shaw, Sabrina Tamburini, Sara Valpione, Levi Waldron, Laurence Zitvogel, Moreno Zolfo, Elisabeth G.E. de Vries, Paul Nathan, Rudolf S.N. Fehrmann, Tim D. Spector, Véronique Bataille, Nicola Segata, Geke A.P. Hospers, and Rinse K. Weersma. [Longitudinal gut microbiome changes in immune checkpoint blockade-treated advanced melanoma.](#) **Nature Medicine**, 30:785–796, 2024.
- [14] Aitor Blanco-Míguez, Sara Carloni, Cindy Cardenas, Carola Conca Dioguardi, Luca Lambroia, Giovanni Capretti, Gennaro Nappo, Alessandro Fugazza, Antonio Capogreco, Federica Armanini, Francesco Asnicar, Leonard Dubois, Davide Golzato, Paolo Manghi, Federica Pinto, Cristina Scuderi, Erminia Casari, Marco Montorsi, Andrea Anderloni, Maria Rescigno, Alessandro Repici, Alessandro Zerbi, Clelia Peano, Sabrina Tamburini, Roberto Rusconi, and Nicola Segata. [Microbial composition associated with biliary stents in patients undergoing pancreatic resection for cancer.](#) **npj Biofilms and Microbiomes**, 10, 2024.
- [15] Marius Bredon, Camille Danne, Hang Phuong Pham, Pauline Ruffié, Alban Bessede, Nathalie Rolhion, Laura Creusot, Loic Brot, Iria Alonso, Philippe Langella, Lisa Derosa, Alexis B. Cortot, Bertrand Routy, Laurence Zitvogel, Nicola Segata, and Harry Sokol. [Faecalibacterium prausnitzii strain EXL01 boosts efficacy of immune checkpoint inhibitors.](#) **OncImmunology**, 13, 2024.
- [16] Niccolò Carlino, Aitor Blanco-Míguez, Michal Punčochář, Claudia Mengoni, Federica Pinto, Alessia Tatti, Paolo Manghi, Federica Armanini, Michele Avagliano, Coral Barcenilla, Samuel Breselge, Raul Cabrera-Rubio, Inés Calvete-Torre, Mairéad Coakley, José F. Cobo-Díaz, Francesca De Filippis, Hrituraj Dey, John Leech, Eline S. Klaassens, Stephen Knobloch, Dominic O’Neil, Narciso M. Quijada, Carlos Sabater, Sigurlaug Skírnisdóttir, Vincenzo Valentino, Liam Walsh, MASTER EU Consortium, Avelino Alvarez-Ordóñez, Francesco Asnicar, Gloria Fackelmann, Vitor Heidrich, Abelardo Margolles, Viggó Thór Marteinsson, Omar Rota Stabelli, Martin Wagner, Danilo Ercolini, Paul D. Cotter, Nicola Segata*, and Edoardo Pasolli*. [Unexplored microbial diversity from 2,500 food metagenomes and links with the human microbiome.](#) **Cell**, 187:5775–5795, 2024.
- [17] Claudia Coleine, Tania Kurbessoian, Giulia Calia, Manuel Delgado-Baquerizo, Alessandro Cestaro, Massimo Pindo, Federica Armanini, Francesco Asnicar, Daniela Isola, Nicola Segata, Claudio Donati, Jason E. Stajich, Sybren de Hoog, and Laura Selbmann. [Class-wide genomic tendency throughout specific extremes in black fungi.](#) **Fungal Diversity**, 125:121–138, 2024.
- [18] Karla Fabiola Corral-Jara, Sigurlaug Skírnisdóttir, Stephen Knobloch, Helgi Briem, José F. Cobo-Díaz, Niccolò Carlino, Pauline Bergsten, Federica Armanini, Francesco Asnicar, Federica Pinto, Avelino Alvarez-Ordóñez, Nicola Segata, and Viggó Þór Marteinsson. [Inter-facility characterization of bacteria in seafood processing plants: Exploring potential reservoirs of spoilage organisms and the resistome.](#) **Heliyon**, 10, 2024.
- [19] Lisa Derosa, Valerio Iebba, Carolina Alves Costa Silva, Gianmarco Piccinno, Guojun Wu, Leonardo Lordello, Bertrand Routy, Naisi Zhao, Cassandra Thelemaque, Roxanne Birebent, Federica Marmorino, Marine Fidelle, Meriem Messaoudene, Andrew Maltez Thomas, Gerard Zalcman, Sylvie Friard, Julien Mazieres, Clarisse Audigier-Valette, Denis Moro Sibilot, François Goldwasser, Arnaud Scherpereel, Hervé Pegliasco, François Ghiringhelli, Nicole Bouchard, Cissé Sow, Ines Darik, Silvia Zoppi, Pierre Ly, Anna Reni, Romain Daillère, Eric Deutsch, Karla A. Lee, Laura A. Bolte, Johannes R. Björk, Rinse K. Weersma, Fabrice Barlesi, Lucas Padilha, Ana Finzel, Morten L. Isaksen, Bernard Escudier, Laurence Albiges, David Planchard, Fabrice André, Chiara Cremolini, Stéphanie Martinez, Benjamin Besse, Liping Zhao, Nicola Segata, Jérôme Wojcik, Guido Kroemer, and Laurence Zitvogel. [Custom scoring based on ecological](#)

- topology of gut microbiota associated with cancer immunotherapy outcome. **Cell**, 187:3373–3389.e16, 2024.
- [20] Léonard Dubois, Mireia Valles-Colomer, Alise Ponsero, Otto Helve, Sture Andersson, Kaija Leena Kolho, Francesco Asnicar, Katri Korpela, Anne Salonen, Nicola Segata*, and Willem M. de Vos*. [Paternal and induced gut microbiota seeding complement mother-to-infant transmission](#). **Cell Host and Microbe**, 32:1011–1024.e4, 2024.
- [21] Francesca De Filippis, Vincenzo Valentino, Min Yap, Raul Cabrera-Rubio, Coral Barcenilla, Niccolò Carlino, José F. Cobo-Díaz, Narciso Martín Quijada, Inés Calvete-Torre, Patricia Ruas-Madiedo, Carlos Sabater, Giuseppina Sequino, Edoardo Pasolli, Martin Wagner, Abelardo Margolles, Nicola Segata, Avelino Álvarez Ordóñez, Paul D. Cotter, and Danilo Ercolini. [Microbiome mapping in dairy industry reveals new species and genes for probiotic and bioprotective activities](#). **npj Biofilms and Microbiomes**, 10, 2024.
- [22] Ludwig Geistlinger, Chloe Mirzayi, Fatima Zohra, Rimsha Azhar, Shaimaa Elsafoury, Clare Grieve, Jennifer Wokaty, Samuel David Gamboa-Tuz, Pratyay Sengupta, Issac Hecht, Aarthi Ravikrishnan, Rafael S. Gonçalves, Eric Franzosa, Karthik Raman, Vincent Carey, Jennifer B. Dowd, Heidi E. Jones, Sean Davis, Nicola Segata, Curtis Huttenhower, and Levi Waldron. [BugSigDB captures patterns of differential abundance across a broad range of host-associated microbial signatures](#). **Nature Biotechnology**, 42:790–802, 2024.
- [23] Kun D. Huang, Lena Amend, Eric J.C. Gálvez, Till Robin Lesker, Romulo de Oliveira, Agata Bielecka, Aitor Blanco-Míguez, Mireia Valles-Colomer, Isabel Ruf, Edoardo Pasolli, Jan Buer, Nicola Segata, Stefan Esser, Till Strowig, and Jan Kehrman. [Establishment of a non-Westernized gut microbiota in men who have sex with men is associated with sexual practices](#). **Cell Reports Medicine**, 5, 2024.
- [24] Asya Khleborodova, Samuel D Gamboa-Tuz, Marcel Ramos, Nicola Segata, Levi Waldron, and Sehyun Oh. [lefser: implementation of metagenomic biomarker discovery tool, LEfSe](#), in R. **Bioinformatics**, 40, 2024.
- [25] Angeli D.G. Macandog, Carlotta Catozzi, Mariaelena Capone, Amir Nabinejad, Padma P. Nanaware, Shujing Liu, Smita Vinjamuri, Johanna A. Stunnenberg, Serena Galiè, Giovanna M. Jodice, Francesca Montani, Federica Armanini, Ester Cassano, Gabriele Madonna, Domenico Mallardo, Benedetta Mazzi, Salvatore Pece, Maria Tagliamonte, Vito Vanella, Massimo Barberis, Pier F. Ferrucci, Christian U. Blank, Marlene Bouvier, Miles C. Andrews, Xiaowei Xu, Laura Santambrogio, Nicola Segata, Luigi Buonaguro, Emilia Cocorocchio, Paolo A. Ascierto, Teresa Manzo, and Luigi Nezi. [Longitudinal analysis of the gut microbiota during anti-PD-1 therapy reveals stable microbial features of response in melanoma patients](#). **Cell Host and Microbe**, 32:2004–2018.e9, 2024.
- [26] Laura Mancin, Ian Rollo, Davide Golzato, Nicola Segata, Cristian Petri, Luca Pengue, Luca Vergani, Nicolò Cassone, Alessandro Corsini, Joao Felipe Mota, Stefania Sut, Stefano Dall'Acqua, and Antonio Paoli. [Short-Term Cocoa Supplementation Influences Microbiota Composition and Serum Markers of Lipid Metabolism in Elite Male Soccer Players](#). **International Journal of Sport Nutrition and Exercise Metabolism**, 34:349–361, 2024.
- [27] Paolo Manghi, Amrisha Bhosle, Kai Wang, Roberta Marconi, Marta Selma-Royo, Liviana Ricci, Francesco Asnicar, Davide Golzato, Wenjie Ma, Dong Hang, Kelsey N. Thompson, Eric A. Franzosa, Amir Nabinejad, Sabrina Tamburini, Eric B. Rimm, Wendy S. Garrett, Qi Sun, Andrew T. Chan, Mireia Valles-Colomer, Manimozhiyan Arumugam, Kate M. Birmingham, Francesca Giordano, Richard Davies, George Hadjigeorgiou, Jonathan Wolf, Till Strowig, Sarah E. Berry, Curtis Huttenhower, Tim D. Spector, Nicola Segata*, and Mingyang Song*. [Coffee consumption is associated with intestinal *Lawsonibacter asaccharolyticus* abundance and prevalence across multiple cohorts](#). **Nature Microbiology**, 9:3120–3134, 2024.
- [28] Elisa Mattavelli, Elisa Piperni, Francesco Asnicar, Laura Redaelli, Liliana Grigore, Fabio Pellegatta, Amir Nabinejad, Sabrina Tamburini, Nicola Segata, Alberico Luigi Catapano, and Andrea Baragetti. [High dietary inflammatory index associates with inflammatory proteins in plasma](#). **Diabetology and Metabolic Syndrome**, 16, 2024.
- [29] Lavinia Morosi, Davide Golzato, Linda Bussini, Hygerda Guma, Federica Tordato, Federica Armanini, Zian Asif, Francesco Carella, Paola Morelli, Michele Bartoletti, Giorgio Da Rin, Erminia Casari, Giuseppe Martano, Maria Rescigno, Nicola Segata, Sara Carloni, and Valeria Cento. Distinct chromosomal mutation associated with cefiderocol resistance in *acinetobacter baumannii*: a combined bioinformatics

- and mass spectrometry approach to unveil and validate the in vivo-acquired chemoresistance. **Frontiers in Microbiology**, 15, 2024.
- [30] Eleonora Pedrazzoli, Michele Demozzi, Elisabetta Visentin, Matteo Ciciani, Iliara Bonuzzi, Laura Pezzè, Lorenzo Lucchetta, Giulia Maule, Simone Amistadi, Federica Esposito, Mariangela Lupo, Annarita Miccio, Alberto Auricchio, Antonio Casini, Nicola Segata*, and Anna Cereseto*. [CoCas9 is a compact nuclease from the human microbiome for efficient and precise genome editing](#). **Nature Communications**, 15, 2024.
 - [31] Elisa Piperni, Long H. Nguyen, Paolo Manghi, Hanseul Kim, Edoardo Pasolli, Sergio Andreu-Sánchez, Alberto Arrè, Kate M. Bermingham, Aitor Blanco-Míguez, Serena Manara, Mireia Valles-Colomer, Elco Bakker, Fabio Busonero, Richard Davies, Edoardo Fiorillo, Francesca Giordano, George Hadjigeorgiou, Emily R. Leeming, Monia Lobina, Marco Masala, Andrea Maschio, Lauren J. McIver, Mauro Pala, Maristella Pitzalis, Jonathan Wolf, Jingyuan Fu, Alexandra Zhernakova, Simone M. Cacciò, Francesco Cucca, Sarah E. Berry, Danilo Ercolini, Andrew T. Chan, Curtis Huttenhower, Tim D. Spector, Nicola Segata*, and Francesco Asnicar*. [Intestinal Blastocystis is linked to healthier diets and more favorable cardiometabolic outcomes in 56,989 individuals from 32 countries](#). **Cell**, 187:4554–4570, 2024.
 - [32] Milena Pitashny, Dina Kao, Gianluca Ianaro, Benjamin Mullish, Gergely Nagy, Tadas Urbanas, Inbar Kesten, Yoav Stabholz, Juozas Kupcinskis, Rose Franz, Debora Rondinella, Sabrina Tamburini, Zsuzsa Tudlik, Luca Masucci, Gianluca Quaranta, William Fusco, Giovanni Cammarota, Jurgita Skieceviciene, Karen Wong, Nicola Segata, Mical Paul, and Haggai Bar-Yoseph. [Lyophilized fecal microbiome transfer for primary Clostridioides difficile infection: a multicenter randomized controlled trial \(DONATE Study\)](#). **Open Research Europe**, 4:61, 2024.
 - [33] Serena Porcari, Benjamin H Mullish, Francesco Asnicar, Siew C Ng, Liping Zhao, Richard Hansen, Paul W O'Toole, Jeroen Raes, Georgina Hold, Lorenza Putignani, Christian Lodberg Hvas, Georg Zeller, Omry Koren, Hein Tun, Mireia Valles-Colomer, Maria Carmen Collado, Monika Fischer, Jessica Allegretti, Tariq Iqbal, Benoit Chassaing, Josbert Keller, Simon Mark Baunwall, Maria Abreu, Giovanni Barbara, Faming Zhang, Francesca Romana Ponziani, Sam P Costello, Sudarshan Paramsothy, Dina Kao, Colleen Kelly, Juozas Kupcinskis, Ilan Youngster, Francesco Franceschi, Sahil Khanna, Maria Vehreschild, Alexander Link, Flavio De Maio, Edoardo Pasolli, Aitor Blanco Miguez, Patrizia Brigidi, Brunella Posteraro, Franco Scaldaferri, Mirjana Rajilic Stojanovic, Francis Megraud, Peter Malfertheiner, Luca Masucci, Manimozhiyan Arumugam, Nadeem Kaakoush, Eran Segal, Jasmohan Bajaj, Rupert Leong, John Cryan, Rinse K Weersma, Robert Knight, Francisco Guarner, Fergus Shanahan, Patrice D Cani, Eran Elinav, Maurizio Sanguinetti, Willem M de Vos, Emad El-Omar, Joel Dorè, Julian Marchesi, Herbert Tilg, Harry Sokol, Nicola Segata*, Giovanni Cammarota*, Antonio Gasbarrini*, and Gianluca Ianaro*. [International consensus statement on microbiome testing in clinical practice](#). **The Lancet Gastroenterology & Hepatology**, 2024.
 - [34] Julie Rodriguez, Zahra Hassani, Carolina Alves Costa Silva, Fay Betsou, Federica Carraturo, Alessio Fasano, Mads Israelsen, Anandhi Iyappan, Aleksander Krag, Amira Metwaly, Robert Schierwagen, Jonel Trebicka, Hub Zwart, Joel Doré, Magali Cordaillat-Simmons, Celine Druart, and on behalf of the Human Microbiome Action Consortium (including Nicola Segata). [State of the art and the future of microbiome-based biomarkers: a multidisciplinary Delphi consensus](#). **The Lancet Microbe**, 2024.
 - [35] Marta Selma-Royo, Léonard Dubois, Serena Manara, Federica Armanini, Raúl Cabrera-Rubio, Mireia Valles-Colomer, Sonia González, Anna Parra-Llorca, Ramon Escuriet, Lars Bode, Cecilia Martínez-Costa, Nicola Segata*, and Maria Carmen Collado*. [Birthmode and environment-dependent microbiota transmission dynamics are complemented by breastfeeding during the first year](#). **Cell Host and Microbe**, 32:996–1010.e4, 2024.
 - [36] Carolina Alves Costa Silva, Gianmarco Piccinno, Déborah Suissa, Mélanie Bourgin, Gerty Schreibelt, Sylvère Durand, Roxanne Birebent, Marine Fidelle, Cissé Sow, Fanny Aprahamian, Paolo Manghi, Michal Punčochář, Francesco Asnicar, Federica Pinto, Federica Armanini, Safae Terrisse, Bertrand Routy, Damien Drubay, Alexander M.M. Eggermont, Guido Kroemer, Nicola Segata, Laurence Zitvogel, Lisa Derosa, Kalijn F. Bol, and I. Jolanda M. de Vries. [Influence of microbiota-associated metabolic re-programming on clinical outcome in patients with melanoma from the randomized adjuvant dendritic cell-based MIND-DC trial](#). **Nature Communications**, 15, 2024.
 - [37] Andrea Silverj, Giulia Mencattelli, Federica Monaco, Federica Iapaolo, Liana Teodori, Alessandra Leone, Andrea Polci, Valentina Curini, Marco Di Domenico, Barbara Secondini, Valeria Di Lollo, Massimo Ancora, Annapia Di Gennaro, Daniela Morelli, Maria Gabriella Perrotta, Giovanni Marini, Roberto Rosà,

- Nicola Segata, Omar Rota-Stabelli, Annapaola Rizzoli, and Giovanni Savini. [Origin and evolution of West Nile virus lineage 1 in Italy](#). **Epidemiology and Infection**, 152, 2024.
- [38] Ana M. Valdes, Panayiotis Louca, Alessia Visconti, Francesco Asnicar, Kate Bermingham, Ana Nogal, Kari Wong, Gregory A. Michelotti, Jonathan Wolf, Nicola Segata, Tim D. Spector, Sarah E. Berry, Mario Falchi, and Cristina Menni. [Vitamin A carotenoids, but not retinoids, mediate the impact of a healthy diet on gut microbial diversity](#). **BMC Medicine**, 22, 2024.
- [39] Mireia Valles-Colomer, Paolo Manghi, Fabio Cumbo, Giulia Masetti, Federica Armanini, Francesco Asnicar, Aitor Blanco-Miguez, Federica Pinto, Michal Punčochář, Alberto Garaventa, Loredana Amoroso, Mirco Ponzoni, Maria Valeria Corrias, and Nicola Segata. [Neuroblastoma is associated with alterations in gut microbiome composition subsequent to maternal microbial seeding](#). **eBioMedicine**, 99, 2024.
- [40] Kai Wang, Chun-Han Lo, Raaj S. Mehta, Long H. Nguyen, Yiqing Wang, Wenjie Ma, Tomotaka Ugai, Hidetaka Kawamura, Satoko Ugai, Yasutoshi Takashima, Kosuke Mima, Kota Arima, Kazuo Okadome, Marios Giannakis, Cynthia L. Sears, Jeffrey A. Meyerhardt, Kimmie Ng, Nicola Segata, Jacques Izard, Eric B. Rimm, Wendy S. Garrett, Curtis Huttenhower, Edward L. Giovannucci, Andrew T. Chan, Shuji Ogino, and Mingyang Song. [An Empirical Dietary Pattern Associated with the Gut Microbial Features in Relation to Colorectal Cancer Risk](#). **Gastroenterology**, 2024.
- [41] Martha Zepeda-Rivera, Samuel S. Minot, Heather Bouzek, Hanrui Wu, Aitor Blanco-Míguez, Paolo Manghi, Dakota S. Jones, Kaitlyn D. LaCourse, Ying Wu, Elsa F. McMahon, Soon Nang Park, Yun K. Lim, Andrew G. Kempchinsky, Amy D. Willis, Sean L. Cotton, Susan C. Yost, Ewa Sicinska, Joong Ki Kook, Floyd E. Dewhirst, Nicola Segata, Susan Bullman, and Christopher D. Johnston. [A distinct *Fusobacterium nucleatum* clade dominates the colorectal cancer niche](#). **Nature**, 628:424–432, 2024.
- [42] Giacomo Antonello, Freida Blostein, Deesha Bhaumik, Elyse Davis, Martin Gögele, Roberto Melotti, Peter Pramstaller, Cristian Pattaro, Nicola Segata, Betsy Foxman, and Christian Fuchsberger. [Smoking and salivary microbiota: a cross-sectional analysis of an Italian alpine population](#). **Scientific Reports**, 13, 2023.
- [43] Kate M. Bermingham, Sophie Stensrud, Francesco Asnicar, Ana M. Valdes, Paul W. Franks, Jonathan Wolf, George Hadjigeorgiou, Richard Davies, Tim D. Spector, Nicola Segata, Sarah E. Berry, and Wendy L. Hall. [Exploring the relationship between social jetlag with gut microbial composition, diet and cardiometabolic health, in the ZOE PREDICT 1 cohort](#). **European Journal of Nutrition**, 2023.
- [44] Aitor Blanco-Míguez, Francesco Beghini, Fabio Cumbo, Lauren J. McIver, Kelsey N. Thompson, Moreno Zolfo, Paolo Manghi, Leonard Dubois, Kun D. Huang, Andrew Maltez Thomas, William A. Nickols, Gianmarco Piccinno, Elisa Piperni, Michal Punčochář, Mireia Valles-Colomer, Adrian Tett, Francesca Giordano, Richard Davies, Jonathan Wolf, Sarah E. Berry, Tim D. Spector, Eric A. Franzosa, Edoardo Pasolli, Francesco Asnicar, Curtis Huttenhower, and Nicola Segata. [Extending and improving metagenomic taxonomic profiling with uncharacterized species using MetaPhlAn 4](#). **Nature Biotechnology**, 41:1633–1644, 2023.
- [45] Aitor Blanco-Míguez, Eric J.C. Gálvez, Edoardo Pasolli, Francesca De Filippis, Lena Amend, Kun D. Huang, Paolo Manghi, Till Robin Lesker, Thomas Riedel, Linda Cova, Michal Punčochář, Andrew Maltez Thomas, Mireia Valles-Colomer, Isabel Schober, Thomas C.A. Hitch, Thomas Clavel, Sarah E. Berry, Richard Davies, Jonathan Wolf, Tim D. Spector, Jörg Overmann, Adrian Tett, Danilo Ercolini, Nicola Segata*, and Till Strowig*. [Extension of the *Segatella copri* complex to 13 species with distinct large extrachromosomal elements and associations with host conditions](#). **Cell Host & Microbe**, 31:1804–1819.e9, 2023.
- [46] Laura A. Bolte, Karla A. Lee, Johannes R. Björk, Emily R. Leeming, Marjo J.E. Campmans-Kuijpers, Jacco J. De Haan, Arnau Vich Vila, Andrew Maltez-Thomas, Nicola Segata, Ruth Board, Mark Harries, Paul Lorigan, Elisabeth G.E. De Vries, Paul Nathan, Rudolf Fehrmann, Véronique Bataille, Tim D. Spector, Geke A.P. Hospers, and Rinse K. Weersma. [Association of a Mediterranean Diet with Outcomes for Patients Treated with Immune Checkpoint Blockade for Advanced Melanoma](#). **JAMA Oncology**, 9:705–709, 2023.
- [47] Giulia I. Corsi, Swapnil Tichkule, Anna Rosa Sannella, Paolo Vatta, Francesco Asnicar, Nicola Segata, Aaron R. Jex, Cock van Oosterhout, and Simone M. Cacciò. [Recent genetic exchanges and admixture shape the genome and population structure of the zoonotic pathogen *Cryptosporidium parvum*](#). **Molecular Ecology**, 32:2633–2645, 2023.

- [48] Marine Fidelle, Conrad Rauber, Carolina Alves Costa Silva, Ai Ling Tian, Imran Lahmar, Anne Laure Malarde de La Varenne, Liwei Zhao, Cassandra Thelemaque, Isabelle Lebhar, Meriem Messaoudene, Eugénie Pizzato, Roxanne Birebent, Maxime Descartes Mbogning Fonkou, Silvia Zoppi, Anna Reni, Cécile Dalban, Marion Leduc, Gladys Ferrere, Sylvère Durand, Pierre Ly, Aymeric Silvain, Kevin Mulder, Charles Antoine Dutertre, Florent Ginhoux, Satoru Yonekura, Maria Paula Roberti, Maryam Tidjani-Alou, Safae Terrisse, Jianzhou Chen, Oliver Kepp, Angela Schippers, Norbert Wagner, Javier Suárez-Gosálvez, Sebastian Kobold, Jean Eudes Fahrner, Corentin Richard, Jacques Bosq, Leonardo Lordello, Giacomo Vitali, Nathalie Galleron, Benoît Quinquis, Emmanuelle Le Chatelier, Lucas Blanchard, Jean Philippe Girard, Anne Jarry, Nadine Gervois, Emmanuelle Godefroy, Nathalie Labarrière, Ronald Koschny, Romain Dailière, Benjamin Besse, Caroline Truntzer, François Ghiringhelli, Nicolas Coatnoan, Vanessa Mhanna, David Klatzmann, Damien Drubay, Laurence Albiges, Andrew Maltez Thomas, Nicola Segata, François Xavier Danlos, Aurélien Marabelle, Bertrand Routy, Lisa Derosa, Guido Kroemer, and Laurence Zitvogel. [A microbiota-modulated checkpoint directs immunosuppressive intestinal T cells into cancers.](#) **Science**, 380, 2023.
- [49] Ludwig Geistlinger, Chloe Mirzayi, Fatima Zohra, Rimsha Azhar, Shaimaa Elsafoury, Clare Grieve, Jennifer Wokaty, Samuel David Gamboa-Tuz, Pratyay Sengupta, Issac Hecht, Aarthi Ravikrishnan, Rafael S. Gonçalves, Eric Franzosa, Karthik Raman, Vincent Carey, Jennifer B. Dowd, Heidi E. Jones, Sean Davis, Nicola Segata, Curtis Huttenhower, and Levi Waldron. [BugSigDB captures patterns of differential abundance across a broad range of host-associated microbial signatures.](#) **Nature Biotechnology**, 2023.
- [50] Katherine M. Kennedy, Marcus C. de Goffau, Maria Elisa Perez-Muñoz, Marie Claire Arrieta, Fredrik Bäckhed, Peer Bork, Thorsten Braun, Frederic D. Bushman, Joel Dore, Willem M. de Vos, Ashlee M. Earl, Jonathan A. Eisen, Michal A. Elovitz, Stephanie C. Ganai-Vonarburg, Michael G. Gänzle, Wendy S. Garrett, Lindsay J. Hall, Mathias W. Hornef, Curtis Huttenhower, Liza Konnikova, Sarah Lebeer, Andrew J. Macpherson, Ruth C. Massey, Alice Carolyn McHardy, Omry Koren, Trevor D. Lawley, Ruth E. Ley, Liam O'Mahony, Paul W. O'Toole, Eric G. Pamer, Julian Parkhill, Jeroen Raes, Thomas Rattei, Anne Salonen, Eran Segal, Nicola Segata, Fergus Shanahan, Deborah M. Sloboda, Gordon C.S. Smith, Harry Sokol, Tim D. Spector, Michael G. Surette, Gerald W. Tannock, Alan W. Walker, Moran Yassour, and Jens Walter. [Questioning the fetal microbiome illustrates pitfalls of low-biomass microbial studies.](#) **Nature**, 613:639–649, 2023.
- [51] Kihyun Lee, Sebastien Raguideau, Kimmo Sirén, Francesco Asnicar, Fabio Cumbo, Falk Hildebrand, Nicola Segata, Chang Jun Cha, and Christopher Quince. [Population-level impacts of antibiotic usage on the human gut microbiome.](#) **Nature Communications**, 14, 2023.
- [52] Panayiotis Louca, Abraham S. Meijnikman, Ana Nogal, Francesco Asnicar, Ilias Attaye, Amrita Vijay, Afroditi Kouraki, Alessia Visconti, Kari Wong, Sarah E. Berry, Emily R. Leeming, Olatz Mompeo, Francesca Tettamanzi, Andrei Florin Baleanu, Mario Falchi, George Hadjigeorgiou, Jonathan Wolf, Yair I.Z. Acherman, Arnold W. Van de Laar, Victor E.A. Gerdes, Gregory A. Michelotti, Paul W. Franks, Nicola Segata, Massimo Mangino, Tim D. Spector, William J. Bulsiewicz, Max Nieuwdorp, Ana M. Valdes, and Cristina Menni. [The secondary bile acid isoursodeoxycholate correlates with post-prandial lipemia, inflammation, and appetite and changes post-bariatric surgery.](#) **Cell Reports Medicine**, 4, 2023.
- [53] Serena Manara, Francesco Beghini, Giulia Masetti, Federica Armanini, Davide Geat, Giulia Galligioni, Nicola Segata, Stefania Farina, and Mario Cristofolini. [Thermal Therapy Modulation of the Psoriasis-Associated Skin and Gut Microbiome.](#) **Dermatology and Therapy**, 13:2769–2783, 2023.
- [54] Serena Manara, Marta Selma-Royo, Kun D. Huang, Francesco Asnicar, Federica Armanini, Aitor Blanco-Míguez, Fabio Cumbo, Davide Golzato, Paolo Manghi, Federica Pinto, Mireia Valles-Colomer, Loredana Amoroso, Maria Valeria Corrias, Mirco Ponzoni, Roberta Raffaetà, Raul Cabrera-Rubio, Mari Olcina, Edoardo Pasolli, Maria Carmen Collado, and Nicola Segata. [Maternal and food microbial sources shape the infant microbiome of a rural Ethiopian population.](#) **Current Biology**, 33:1939–1950.e4, 2023.
- [55] Paolo Manghi, Aitor Blanco-Míguez, Serena Manara, Amir NabiNejad, Fabio Cumbo, Francesco Beghini, Federica Armanini, Davide Golzato, Kun D. Huang, Andrew M. Thomas, Gianmarco Piccinno, Michal Punčochář, Moreno Zolfo, Till R. Lesker, Marius Bredon, Julien Planchais, Jeremy Glodt, Mireia Valles-Colomer, Omry Koren, Edoardo Pasolli, Francesco Asnicar, Till Strowig, Harry Sokol, and Nicola Segata. [MetaPhlAn 4 profiling of unknown species-level genome bins improves the characterization of diet-associated microbiome changes in mice.](#) **Cell Reports**, 42, 2023.
- [56] Giulia Mencattelli, Marie Henriette Dior Ndione, Andrea Silverj, Moussa Moise Diagne, Valentina Curini, Liana Teodori, Marco Di Domenico, Rassoul Mbaye, Alessandra Leone, Maurilia Marcacci, Alioune Gaye,

- El Hadji Ndiaye, Diawo Diallo, Massimo Ancora, Barbara Secondini, Valeria Di Lollo, Iolanda Mangone, Andrea Bucciaccchio, Andrea Polci, Giovanni Marini, Roberto Rosà, [Nicola Segata](#), Gamou Fall, Cesare Cammà, Federica Monaco, Mawlouth Diallo, Omar Rota-Stabelli, Oumar Faye, Annapaola Rizzoli, and Giovanni Savini. [Spatial and temporal dynamics of West Nile virus between Africa and Europe](#). **Nature Communications**, 14, 2023.
- [57] Giulia Mencattelli, Andrea Silverj, Federica Iapaolo, Carla Ippoliti, Liana Teodori, Annapia Gennaro, Valentina Curini, Luca Candeloro, Annamaria Conte, Andrea Polci, Daniela Morelli, Maria Perrotta, Giovanni Marini, Roberto Rosà, Federica Monaco, [Nicola Segata](#), Annapaola Rizzoli, Omar Rota-Stabelli, Giovanni Savini, and West Nile working group. [Epidemiological and Evolutionary Analysis of West Nile Virus Lineage 2 in Italy](#). **Viruses**, 15:35, 2023.
- [58] Ana Nogal, Francesco Asnicar, Amrita Vijay, Afroditi Kouraki, Alessia Visconti, Panayiotis Louca, Kari Wong, Andrei Florin Baleanu, Francesca Giordano, Jonathan Wolf, George Hadjigeorgiou, Richard Davies, Gregory A. Michelotti, Paul W. Franks, Sarah E. Berry, Mario Falchi, Adeel Ikram, Benjamin J. Ollivere, Amy Zheng, Jessica Nightingale, Massimo Mangino, [Nicola Segata](#), William J. Bulsiewicz, Tim D. Spector, Ana M. Valdes, and Cristina Menni. [Genetic and gut microbiome determinants of SCFA circulating and fecal levels, postprandial responses and links to chronic and acute inflammation](#). **Gut Microbes**, 15, 2023.
- [59] Ana Nogal, Francesca Tettamanzi, Qiuling Dong, Panayiotis Louca, Alessia Visconti, Colette Christiansen, Taylor Breuninger, Jakob Linseisen, Harald Grallert, Nina Wawro, Francesco Asnicar, Kari Wong, Andrei-Florin Baleanu, Gregory A Michelotti, [Nicola Segata](#), Mario Falchi, Annette Peters, Paul W Franks, Vincenzo Bagnardi, Tim D Spector, Jordana T Bell, Christian Gieger, Ana M Valdes, and Cristina Menni. [A faecal metabolite signature of impaired fasting glucose: results from two independent population-based cohorts](#). **Diabetes**, 2023.
- [60] Paul W. O'Toole, Tarini Shankar Ghosh, Sourav Goswami, Paolo Manghi, [Nicola Segata](#), and Fergus Shanahan. [Translating the Microbiome: What's the Target?](#) **Gastroenterology**, 165:317–319, 2023.
- [61] Serena Porcari, Nicolas Benech, Mireia Valles-Colomer, [Nicola Segata](#), Antonio Gasbarrini, Giovanni Cammarota, Harry Sokol, and Gianluca Ianaro. [Key determinants of success in fecal microbiota transplantation: From microbiome to clinic](#). **Cell Host & Microbe**, 31:712–733, 2023.
- [62] Liviana Ricci, Marta Selma-Royo, Davide Golzato, Amir Nabinejad, Charlotte Servais, Federica Armanini, Francesco Asnicar, Federica Pinto, Sabrina Tamburini, and [Nicola Segata](#). [Draft genome sequence of a representative strain of the Catenibacterium genus isolated from human feces](#). **Microbiology Resource Announcements**, 12, 2023.
- [63] Bertrand Routy, John G. Lenahan, Wilson H. Miller, Rahima Jamal, Meriem Messaoudene, Brendan A. Daisley, Cecilia Hes, Kait F. Al, Laura Martinez-Gili, Michal Punčochář, Scott Ernst, Diane Logan, Karl Belanger, Khashayar Esfahani, Corentin Richard, Marina Ninkov, Gianmarco Piccinno, Federica Armanini, Federica Pinto, Mithunah Krishnamoorthy, Rene Figueredo, Pamela Thebault, Panteleimon Takis, Jamie Magrill, Lee Ann Ramsay, Lisa Derosa, Julian R. Marchesi, Seema Nair Parvathy, Arielle Elkrief, Ian R. Watson, Rejean Lapointe, [Nicola Segata](#), S. M. Mansour Haeryfar, Benjamin H. Mullish, Michael S. Silverman, Jeremy P. Burton, and Saman Maleki Vareki. [Fecal microbiota transplantation plus anti-PD-1 immunotherapy in advanced melanoma: a phase I trial](#). **Nature Medicine**, 29:2121–2132, 2023.
- [64] Nico Salmaso, Adriano Boscaini, Leonardo Cerasino, Massimo Pindo, Federica Pinto, [Nicola Segata](#), and Claudio Donati. [Draft genome sequence of the anatoxin-a producing cyanobacterium Tychonema bourrellyi B0820 isolated from the epilimnion of the deep Alpine Lake Garda](#). **Microbiology Resource Announcements**, 2023.
- [65] Marta Selma-Royo, Liviana Ricci, Davide Golzato, Charlotte Servais, Federica Armanini, Francesco Asnicar, Federica Pinto, and [Nicola Segata](#). [Draft Genome Sequence of Neopoerus faecalis gen. nov., sp. nov., an Oscillospiraceae Strain Isolated from Human Feces](#). **Microbiology Resource Announcements**, 12, 2023.
- [66] Marta Selma-Royo, [Nicola Segata](#)*, and Liviana Ricci. Human microbiome cultivation expands with ai, 2023.
- [67] Andrew Maltez Thomas, Marine Fidelle, Bertrand Routy, Guido Kroemer, Jennifer A. Wargo, [Nicola Segata](#), and Laurence Zitvogel. [Gut OncoMicrobiome Signatures \(GOMS\) as next-generation biomarkers for cancer immunotherapy](#). **Nature Reviews Clinical Oncology**, 20:583–603, 2023.

- [68] Mireia Valles-Colomer, Aitor Blanco-Míguez, Paolo Manghi, Francesco Asnicar, Leonard Dubois, Davide Golzato, Federica Armanini, Fabio Cumbo, Kun D Huang, Serena Manara, Giulia Masetti, Federica Pinto, Elisa Piperni, Michal Punčochář, Liviana Ricci, Moreno Zolfo, Olivia Farrant, Adriana Goncalves, Marta Selma-Royo, Ana G Binetti, Jimmy E Becerra, Bei Han, John Lusingu, John Amuasi, Loredana Amoroso, Alessia Visconti, Claire M Steves, Mario Falchi, Michele Filosi, Adrian Tett, Anna Last, Qian Xu, Nan Qin, Huanlong Qin, Jürgen May, Daniel Eibach, Maria Valeria Corrias, Mirco Ponzoni, Edoardo Pasolli, Tim D Spector, Enrico Domenici, Maria Carmen Collado, and Nicola Segata. [The person-to-person transmission landscape of the gut and oral microbiomes](#). **Nature**, 614:125–135, 2023.
- [69] Mireia Valles-Colomer, Cristina Menni, Sarah E. Berry, Ana M. Valdes, Tim D. Spector, and Nicola Segata. [Cardiometabolic health, diet and the gut microbiome: a meta-omics perspective](#), 2023.
- [70] Yiqing Wang, Wenjie Ma, Raaj Mehta, Long H. Nguyen, Mingyang Song, David A. Drew, Francesco Asnicar, Curtis Huttenhower, Nicola Segata, Jonathan Wolf, Tim Spector, Sarah Berry, Kyle Staller, and Andrew T. Chan. [Diet and gut microbial associations in irritable bowel syndrome according to disease subtype](#). **Gut microbes**, 15:2262130, 2023.
- [71] Marc F. Österdahl, Ronan Whiston, Carole H. Sudre, Francesco Asnicar, Nathan J. Cheetham, Aitor Blanco Miguez, Vicky Bowyer, Michela Antonelli, Olivia Snell, Liane dos Santos Canas, Christina Hu, Jonathan Wolf, Cristina Menni, Michael Malim, Deborah Hart, Tim Spector, Sarah Berry, Nicola Segata, Katie Doores, Sebastien Ourselin, Emma L. Duncan, and Claire J. Steves. [Metabolomic and gut microbiome profiles across the spectrum of community-based COVID and non-COVID disease](#). **Scientific Reports**, 13, 2023.
- [72] Federica Bellerba, Davide Serrano, Johansson Harriet, Chiara Pozzi, Nicola Segata, Amir NabiNejad, Elisa Piperni, Patrizia Gnagnarella, Debora Macis, Valentina Aristarco, Chiara A. Accornero, Paolo Manghi, Aliana Guerrieri Gonzaga, Roberto Biffi, Luca Bottiglieri, Cristina Trovato, Maria Giulia Zampino, Federica Corso, Rino Bellocco, Sara Raimondi, Maria Rescigno, and Sara Gandini. [Colorectal cancer, Vitamin D and microbiota: A double-blind Phase II randomized trial \(ColoViD\) in colorectal cancer patients. Neoplasia](#), 34, 2022.
- [73] Kate M Bermingham, Inbar Linenberg, Wendy L Hall, Kirstin Kad, Paul W Franks, Richard Davies, Jonathan Wolf, George Hadjigeorgiou, Francesco Asnicar, Nicola Segata, Joann E Manson, Louise R Newson, Linda M Delahanty, Jose M Ordovas, Andrew T Chan, Tim D Spector, Ana M Valdes, and Sarah E Berry. [Menopause is associated with postprandial metabolism, metabolic health and lifestyle: The ZOE PREDICT study](#). **eBioMedicine**, 00, 2022.
- [74] Luca Bianco, Mirko Moser, Andrea Silverj, Diego Micheletti, Giovanni Lorenzin, Lucia Collini, Mattia Barbareschi, Paolo Lanzafame, Nicola Segata, Massimo Pindo, Pietro Franceschi, Omar Rota-stabelli, Annapaola Rizzoli, Paolo Fontana, and Claudio Donati. [On the Origin and Propagation of the COVID-19 Outbreak in the Italian Province of Trento, a Tourist Region of Northern Italy](#). **Viruses**, 14:1–18, 2022.
- [75] Simone Bihl, Marcus de Goffau, Daniel Podlesny, Nicola Segata, Fergus Shanahan, Jens Walter, and W. Florian Fricke. [When to suspect contamination rather than colonization – lessons from a putative fetal sheep microbiome](#). **Gut Microbes**, 14, 2022.
- [76] Matteo Ciciani, Michele Demozzi, Eleonora Pedrazzoli, Elisabetta Visentin, Laura Pezze', Lorenzo Federico Signorini, Aitor Blanco-Miguez, Moreno Zolfo, Francesco Asnicar, Antonio Casini, Anna Cereseto, and Nicola Segata. [Automated identification of sequence-tailored Cas9 proteins using massive metagenomic data](#). **Nature Communications**, 2022.
- [77] Thomas Clavel, Hans-Peter Horz, Nicola Segata, and Maria Vehreschild. [Next steps after 15 stimulating years of human gut](#). **Microbial Biotechnology**, 15:1–12, 2022. [I.F. 5.81].
- [78] Lisa Derosa, Bertrand Routy, Andrew Thomas, Valerio Iebba, Gerard Zalcman, Sylvie Friard, Julien Mazieres, Audigier-Valette, Denis Moro-Sibilot, François Goldwasser, Carolina Alves Costa Silva, Safae Terrisse, Melodie Bonvalet, Arnaud Scherpereel, Hervé Pegliasco, Corentin Richard, François Ghiringhelli, Arielle Elkrief, Antoine Desilets, Felix Blanc-Durand, Fabio Cumbo, Aitor Blanco-Míguez, Romain Boidot, Sandy Chevrier, Romain Daillère, Guido Kroemer, Laurie Alla, Emmanuelle Le Chatelier, Nicolas Pons, Nathalie Galleron, Hugo Roume, Agathe Dubuisson, Nicole Bouchard, Meriem Messaoudene, Damien Drubay, Eric Deutsch, Fabrice Barlesi, David Planchard, Nicola Segata, Stéphanie Martinez, Jean-Charles Soria, and Benjamin Besse. [Intestinal Akkermansia muciniphila predicts clinical response to PD-1 blockade in patients with advanced non-small-cell lung cancer](#). **Nature Medicine**, 2022.

- [79] Gianluca Ianaro, Michal Punčochář, Nicolai Karcher, Serena Porcari, Federica Armanini, Francesco Asnicar, Francesco Beghini, Aitor Blanco-Míguez, Fabio Cumbo, Paolo Manghi, Federica Pinto, Luca Masucci, Gianluca Quaranta, Silvia De Giorgi, Giusi Desirè Sciumè, Stefano Bibbò, Federica Del Chierico, Lorenza Putignani, Maurizio Sanguinetti, Antonio Gasbarrini, Mireia Valles-Colomer, Giovanni Cammarota, and Nicola Segata. [Variability of strain engraftment and predictability of microbiome composition after fecal microbiota transplantation across different diseases](#). **Nature Medicine**, 28:1913–1923, 2022.
- [80] Karla Lee, Andrew Thomas, Laura Bolte, Johannes Björk, Laura Kist de Ruijter, Federica Armanini, Francesco Asnicar, Ruth Board, Neus Calbet-Llopart, Lisa Derosa, Nathalie Dhomen, Kelly Brooks, Mark Harland, Mark Harries, Emily Leeming, Paul Lorigan, Paolo Manghi, Richard Marais, Julia Newton-Bishop, Luigi Nezi, Miriam Potrony, Susana Puig, Patricio Serra-Bellver, Heather Shaw, Sara Valpione, Amrita Vijay, Levi Waldron, Laurence Zitvogel, Elisabeth de Vries, Paul Nathan, Rudolf Fehrmann, Veronique Bataille, Geke Hospers, Tim Spector, Rinse Weersma, and Nicola Segata. [Cross-cohort gut microbiome associations with immune checkpoint inhibitor response in advanced melanoma](#). **Nature Medicine**, 28:534–544, 2022. [I.F. 53.44].
- [81] Fernando Meyer, Adrian Fritz, Zhi-Luo Deng, David Koslicki, Till Robin Lesker, Alexey Gurevich, Gary Robertson, Mohammed Alser, Dmitry Antipov, Francesco Beghini, Denis Bertrand, Jaqueline J. Brito, C. Titus Brown, Jan Buchmann, Aydin Buluç, Bo Chen, Rayan Chikhi, Philip T. L. C. Clausen, Alexandru Cristian, Piotr Wojciech Dabrowski, Aaron E. Darling, Rob Egan, Eleazar Eskin, Evangelos Georganas, Eugene Goltsman, Melissa A. Gray, Lars Hestbjerg Hansen, Steven Hofmeyr, Pingqin Huang, Luiz Irber, Huijue Jia, Tue Sparholt Jørgensen, Silas D. Kieser, Terje Klemetsen, Axel Kola, Mikhail Kolmogorov, Anton Korobeynikov, Jason Kwan, Nathan LaPierre, Claire Lemaitre, Chenhao Li, Antoine Limasset, Fabio Malcher-Miranda, Serghei Mangul, Vanessa R. Marcelino, Camille Marchet, Pierre Marijon, Dmitry Meleshko, Daniel R. Mende, Alessio Milanese, Niranjan Nagarajan, Jakob Nissen, Sergey Nurk, Leonid Oliker, Lucas Paoli, Pierre Peterlongo, Vitor C. Piro, Jacob S. Porter, Simon Rasmussen, Evan R. Rees, Knut Reinert, Bernhard Renard, Espen Mikal Robertsen, Gail L. Rosen, Hans-Joachim Ruscheweyh, Varuni Sarwal, Nicola Segata, Enrico Seiler, Lizhen Shi, Fengzhu Sun, Shinichi Sunagawa, Søren Johannes Sørensen, Ashleigh Thomas, Chengxuan Tong, Mirko Trajkovski, Julien Tremblay, Gherman Uritskiy, Riccardo Vicedomini, Zhengyang Wang, Ziye Wang, Zhong Wang, Andrew Warren, Nils Peder Willassen, Katherine Yelick, Ronghui You, Georg Zeller, Zhengqiao Zhao, Shanfeng Zhu, Jie Zhu, Ruben Garrido-Oter, Petra Gastmeier, Stephane Hacquard, Susanne Häußler, Ariane Khaledi, Friederike Maechler, Fantin Mesny, Simona Radutoiu, Paul Schulze-Lefert, Nathiana Smit, Till Strowig, Andreas Bremges, Alexander Sczyrba, and Alice Carolyn McHardy. [Critical Assessment of Metagenome Interpretation: the second round of challenges](#). **Nature Methods**, 2022.
- [82] Renato Pedron, Alfonso Esposito, William Cozza, Massimo Paolazzi, Mario Cristofolini, Nicola Segata, and Olivier Jousson. [Microbiome characterization of alpine water springs for human consumption reveals site- and usage-specific microbial signatures](#). **Frontiers in Microbiology**, 13, 2022.
- [83] Niccolo Rossi, Karla A Lee, Maria V Bermudez, Alessia Visconti, Maltez Thomas, Laura A Bolte, Johannes Björk, Laura Kist De Ruijter, Julia Newton-bishop, Mark Harland, Heather M Shaw, Mark Harries, Joseph Sacco, Ruth Board, Paul Lorigan, Elisabeth G E de Vries, Nicola Segata, Leonie Taams, Sophie Papa, Tim D Spector, Paul Nathan, Rinse K Weersma, Geke A.P. Hospers, Rudolf S.N. Fehrmann, Veronique Bataille, and Mario Falchi. [Circulating inflammatory proteins associate with response to immune checkpoint inhibition therapy in patients with advanced melanoma](#). **eBioMedicine**, 83:1–12, 2022.
- [84] Sonia Tarallo, Giulio Ferrero, Francesca De Filippis, Antonio Francavilla, Edoardo Pasolli, Valentina Panero, Francesca Cordero, Nicola Segata, Sara Grioni, Ruggero Gaetano Pensa, Barbara Pardini, Danilo Ercolini, and Alessio Naccarati. [Stool microRNA profiles reflect different dietary and gut microbiome patterns in healthy individuals](#). **Gut**, 71:1302–1314, 2022. [I.F. 23.06].
- [85] Safae Terrisse, Anne-Gaelle Goubet, Kousuke Ueda, Andrew Maltez Thomas, Valentin Quiniou, Cassandra Thelemaque, Garrett Dunsmore, Emmanuel Clave, Melissa Gamat-Huber, Satoru Yonekura, Gladys Ferrere, Conrad Rauber, Hang Phuong Pham, Jean-Eudes Fahrner, Eugenie Pizzato, Pierre Ly, Marine Fidelle, Marine Mazzenga, Carolina Alves Costa Silva, Federica Armanini, Federica Pinto, Francesco Asnicar, Romain Daillère, Lisa Derosa, Corentin Richard, Pierre Blanchard, Bertrand Routy, Stéphane Culine, Paule Opolon, Aymeric Silvin, Florent Ginhoux, Antoine Toubert, Nicola Segata, Douglas G McNeel, Karim Fizazi, Guido Kroemer, and Laurence Zitvogel. [Immune system and intestinal microbiota](#)

- determine efficacy of androgen deprivation therapy against prostate cancer. **Journal for ImmunoTherapy of Cancer**, 10:e004191, 2022.
- [86] Michele Tomasi, Elena Caproni, Mattia Benedet, Ilaria Zanella, Sebastiano Giorgetta, Mattia Dalsass, Enrico König, Assunta Gagliardi, Laura Fantappiè, Alvise Berti, Silvia Tamburini, Lorenzo Croia, Gabriele Di Lascio, Erika Bellini, Silvia Valensin, Giada Licata, Guido Sebastiani, Francesco Dotta, Federica Armanini, Fabio Cumbo, Francesco Asnicar, Aitor Blanco-Míguez, Eliana Ruggiero, Nicola Segata, Guido Grandi, and Alberto Grandi. [Outer Membrane Vesicles From The Gut Microbiome Contribute to Tumor Immunity by Eliciting Cross-Reactive T Cells](#). **Frontiers in Oncology**, 12, 2022.
- [87] Neli Tsereteli, Raphael Vallat, Juan Fernandez-tajes, Linda M Delahanty, Jose M Ordovas, David A Drew, Ana M Valdes, [Nicola Segata](#), Andrew T Chan, Jonathan Wolf, Sarah E Berry, Matthew P Walker, Timothy D Spector, and Paul W Franks. [Impact of insufficient sleep on dysregulated blood glucose control under standardised meal conditions](#). **Diabetologia**, 65:356–365, 2022.
- [88] Mireia Valles-Colomer, Rodrigo Bacigalupe, Sara Vieira-Silva, Shinya Suzuki, Youssef Darzi, Raul Y. Tito, Takuji Yamada, [Nicola Segata](#), Jeroen Raes, and Gwen Falony. [Variation and transmission of the human gut microbiota across multiple familial generations](#). **Nature Microbiology**, 7:87–96, 2022.
- [89] Qian Xu, Chunyan Wu, Qi Zhu, Renyuan Gao, Jianquan Lu, Mireia Valles-Colomer, Jian Zhu, Linsheng Huang, Lulu Ding, Xiaohui Zhang, Yonghui Zhang, Xiao Xiong, Miaomiao Bi, Xiang Chen, Yefei Zhu, Liu Liu, Yongqiang Liu, Yongshen Chen, Jian Fan, Yan Sun, Jun Wang, Zhan Cao, Chunsun Fan, S Dusko Ehrlich, [Nicola Segata](#), Nan Qin, and Huanlong Qin. [Metagenomic and metabolomic remodeling in nonagenarians and centenarians and its association with genetic and socio-economic factors](#). **Nature Aging**, 2:438–452, 2022.
- [90] Satoru Yonekura, Safae Terrisse, Carolina Alves Costa Silva, Antoine Lafarge, Valerio Iebba, Gladys Ferrere, Anne-Gaëlle Goubet, Jean-Eudes Fahrner, Imran Lahmar, Kosuke Ueda, Gibrail Mansouri, Eugenie Pizzato, Pierre Ly, Marine Mazzenga, Cassandra Thelemaque, Marine Fidelle, Fanny Jaulin, Jérôme Cartry, Marc Deloger, Marine Aglave, Nathalie Droin, Paule Opolon, Angelique Puget, Fanny Mann, Michel Neunlist, Anne Bessard, Laetitia Aymeric, Tamara Matysiak-Budnik, Jacques Bosq, Paul Hofman, Connie M. Duong, Sophie Ugolini, Valentin Quiniou, Sylvie Berrard, Bernhard Ryffel, Oliver Kepp, Guido Kroemer, Bertrand Routy, Leonardo Lordello, Mohamed-Amine Bani, Nicola Segata, Fjodor Yousef Yengej, Hans Clevers, Jean-Yves Scoazec, Edoardo Pasoli, Lisa Derosa, and Laurence Zitvogel. [Cancer induces a stress ileopathy depending on beta-adrenergic receptors and promoting dysbiosis that contribute to carcinogenesis](#). **Cancer Discovery**, 12:1128–1151, 2022. [I.F. 39.39].
- [91] Alexandre Almeida, Stephen Nayfach, Miguel Boland, Francesco Strozzi, Martin Beracochea, Zhou Jason Shi, Katherine S. Pollard, Ekaterina Sakharova, Donovan H. Parks, Philip Hugenholtz, [Nicola Segata](#), Nikos C. Kyrpides, and Robert D. Finn. [A unified catalog of 204,938 reference genomes from the human gut microbiome](#). **Nature Biotechnology**, 39, 2021. [I.F. 35.72].
- [92] Francesco Asnicar, Sarah E Berry, Ana M Valdes, Long H Nguyen, Gianmarco Piccinno, David A Drew, Emily Leeming, Rachel Gibson, Caroline Le Roy, Haya Al Khatib, Lucy Francis, Mohsen Mazidi, Olaz Mompeo, Mireia Valles-Colomer, Adrian Tett, Francesco Beghini, Leonard Dubois, Davide Bazzani, Andrew Maltez Thomas, Chloe Mirzayi, Asya Khleborodova, Sehyun Oh, Rachel Hine, Christopher Bonnet, Joan Capdevila Pujol, Serge Danzanvilliers, Francesca Giordano, Ludwig Geistlinger, Levi Waldron, Richard Davies, George Hadjigeorgiou, Jonathan Wolf, Jose M Ordovas, Christopher D Gardner, Paul W Franks, Andrew T Chan, Curtis Huttenhower, Tim D Spector, and [Nicola Segata](#). [Microbiome connections with host metabolism and habitual diet from 1098 deeply phenotyped individuals](#). **Nature Medicine**, 27:321–332, 2021. [I.F. 53.44].
- [93] Francesco Asnicar, Emily R Leeming, Eirini Dimidi, Mohsen Mazidi, Paul W Franks, Haya Al Khatib, Ana M Valdes, Richard Davies, Elco Bakker, Lucy Francis, Andrew T Chan, Rachel Gibson, George Hadjigeorgiou, Jonathan Wolf, Tim D Spector*, [Nicola Segata*](#), and Sarah E Berry*. [Blue poo: Impact of gut transit time on the gut microbiome using a novel marker](#). **Gut**, 70:1665–1674, 2021. [I.F. 19.82].
- [94] Francesco Beghini, Lauren J. McIver, Aitor Blanco-Míguez, Leonard Dubois, Francesco Asnicar, Sagan Maharjan, Ana Mailyan, Andrew Maltez Thomas, Paolo Manghi, Mireia Valles-Colomer, George Weingart, Yancong Zhang, Moreno Zolfo, Curtis Huttenhower, Eric A. Franzosa, and [Nicola Segata](#). [Integrating taxonomic, functional, and strain-level profiling of diverse microbial communities with bioBakery 3](#). **eLife**, 10:1–42, 2021. [I.F. 8.14].
- [95] Alice Bertocchi, Sara Carloni, Paola Simona Ravenda, Chiara Pozzi, Giuseppe Penna, Alice Bertocchi, Sara Carloni, Paola Simona Ravenda, Giovanni Bertalot, Ilaria Spadoni, Antonino Lo Cascio, Sara Gandini,

- Michela Lizier, Daniele Braga, Francesco Asnicar, [Nicola Segata](#), Chris Klaver, Paola Brescia, Elio Rossi, Achille Anselmo, Silvia Guglietta, Annalisa Maroli, Paola Spaggiari, Noelia Tarazona, Andres Cervantes, Silvia Marsoni, Luca Lazzari, Maria Giovanna Jodice, Chiara Luise, Marco Erreni, Salvatore Pece, Pier Paolo Di Fiore, Giuseppe Viale, Antonino Spinelli, Chiara Pozzi, Giuseppe Penna, and Maria Rescigno. [Gut vascular barrier impairment leads to intestinal bacteria dissemination and colorectal cancer metastasis to liver.](#) **Cancer Cell**, 39:1–17, 2021. [I.F. 31.749].
- [96] Marco A Crisci, Lin xing Chen, Audra E Devoto, Adair L Borges, Nicola Bordin, Rohan Sachdeva, Adrian Tett, Allison M Sharrar, [Nicola Segata](#), Francesco DeBenedetti, Mick Bailey, Rachel Burt, Rhiannon M Wood, Lewis J Rowden, Paula M Corsini, Steven van Winden, Mark A Holmes, Shufei Lei, Jillian F Banfield, and Joanne M Santini. [Closely related Lak megaphages replicate in the microbiomes of diverse animals.](#) **iScience**, 24, 2021.
- [97] Gladys Ferrere, Maryam Tidjani Alou, Peng Liu, Anne-Gaëlle Goubet, Marine Fidelle, Oliver Kepp, Sylvère Durand, Valerio Iebba, Aurélie Fluckiger, Romain Daillère, Cassandra Thelemaque, Claudia Grajeda-Iglesias, Carolina Alves Costa Silva, Fanny Aprahamian, Deborah Lefevre, Liwei Zhao, Bernhard Ryffel, Emeline Colomba, Monica Arnedos, Damien Drubay, Conrad Rauber, Didier Raoult, Francesco Asnicar, Tim Spector, [Nicola Segata](#), Lisa Derosa, Guido Kroemer, and Laurence Zitvogel. [Ketogenic diet and ketone bodies enhance the anticancer effects of PD1 blockade.](#) **JCI Insights**, 6, 2021. [I.F. 8.31].
- [98] Roberto Feuda, Matthew Goulty, Nicola Zadra, Tiziana Gasparetti, Ezio Rosato, Davide Pisani, Annapaola Rizzoli, [Nicola Segata](#), Lino Ometto, and Omar Rota Stabelli. [Phylogenomics of opsin genes in Diptera reveals lineage-specific events and contrasting evolutionary dynamics in Anopheles and Drosophila.](#) **Genome Biology and Evolution**, 13, 2021. [I.F. 3.41].
- [99] Anne-Gaëlle Goubet, Richard Wheeler, Aurélie Fluckiger, Bo Qu, Fabien Lemaître, Kristina Iribarren, Laura Mondragón, Maryam Tidjani Alou, Eugénie Pizzato, Sylvère Durand, Lisa Derosa, Fanny Aprahamian, Noémie Bossut, Maryse Moya-Nilges, Diane Derrien, Guo Chen, Marion Leduc, Joseph Adrien, Nicolas Pons, Emmanuelle Le Chatelier, [Nicola Segata](#), Satoru Yonekura, Valerio Iebba, Oliver Kepp, Didier Raoult, Fabrice André, Guido Kroemer, Ivo Gomperts Boneca, Laurence Zitvogel, and Romain Daillère. Multifaceted modes of action of the anticancer probiotic enterococcus hirae. **Cell Death and Differentiation**, 28:2276–2295, 2021. [I.F. 15.83].
- [100] Lena GraneHäll, Kun D Huang, Adrian Tett, Paolo Manghi, Alice Paladin, Niall O Sullivan, Omar Rota-stabelli, [Nicola Segata](#), Albert Zink, and Frank Maixner. Metagenomic analysis of ancient dental calculus reveals unexplored diversity of oral archaeal methanobrevibacter. **Microbiome**, 9:1–18, 2021.
- [101] Buck Hanson, Dimitri Kits, Jessica Löffler, Anna Burrichter, Alexander Fiedler, Karin Denger, Benjamin Frommeyer, Craig Herbold, Thomas Rattei, Nicolai Karcher, [Nicola Segata](#), David Schleheck, and Alexander Loy. [Sulfoquinovose is a select nutrient of prominent bacteria and a source of hydrogen sulfide in the human gut.](#) **ISME Journal**, 15:2779–2791, 2021. [I.F. 10.30].
- [102] Nicolai Karcher, Eleonora Nigro, Michal Punčochář, Aitor Blanco-Míguez, Matteo Ciciani, Paolo Manghi, Moreno Zolfo, Fabio Cumbo, Serena Manara, Anna Cereseto, Manimozhiyan Arumugam, Thi Phuong Nam Buy, Hanne Tytgat, Mireia Valles-Colomer, Willem M de Vos, and [Nicola Segata](#). Genomic diversity and ecology of human-associated akkermansia species in the gut microbiome revealed by extensive metagenomic assembly. **Genome Biology**, page 209, 2021. [I.F. 13.54].
- [103] Katherine M Kennedy, Christian J Bellissimo, Jessica A Breznik, Jon Barrett, Thorsten Braun, Frederic D Bushman, Marcus De Goffau, Michal A Elovitz, Markus M Heimesaat, Liza Konnikova, Omry Koren, Samuel Parry, Laura Rossi, [Nicola Segata](#), Rebecca A Simmons, Michael G Surette, Jens Walter, and Deborah Sloboda. [Over-feeding fetal microbial exposure.](#) **Cell**, 184:5839–5841, 2021. [I.F. 41.58].
- [104] Panayiotis Louca, Ana Nogal, Philippa M Wells, Francesco Asnicar, Jonathan Wolf, Claire J Steves, Tim D Spector, [Nicola Segata](#), Sarah E Berry, Ana M Valdes, and Cristina Menni. [Gut microbiome diversity and composition is associated with hypertension in women.](#) **Journal of Hypertension**, pages 1–7, 2021.
- [105] Frank Maixner, Mohamed S. Sarhan, Kun D. Huang, Adrian Tett, Alexander Schoenafinger, Stefania Zingale, Aitor Blanco-Míguez, Paolo Manghi, Jan Cemper-Kiesslich, Wilfried Rosendahl, Ulrike Kusebauch, Seamus R. Morrone, Michael R. Hoopmann, Omar Rota-Stabelli, Thomas Rattei, Robert L. Moritz, Klaus Oeggel, [Nicola Segata](#), Albert Zink, Hans Reschreiter, and Kerstin Kowarik. Hallstatt miners consumed blue cheese and beer during the iron age and retained a non-westernized gut microbiome until the baroque period. **Current Biology**, 31:5149–5162.e6, 2021.

- [106] Mohsen Mazidi, Ana M Valdes, Jose M Ordovas, Wendy L Hall, Joan Capdevila Pujol, Jonathan Wolf, George Hadjigeorgiou, Nicola Segata, Naveed Sattar, Robert Koivula, Tim D Spector, Paul W Franks, and Sarah E Berry. Meal-induced inflammation: postprandial insights from the personalised responses to dietary composition trial (predict) study in 1000 participants. **The American Journal of Clinical Nutrition**, 114:1028–1038, 2021.
- [107] Cristina Menni, Panayiotis Louca, Sarah E Berry, Amrita Vijay, Stuart Astbury, Emily R Leeming, Rachel Gibson, Francesco Asnicar, Gianmarco Piccinno, Jonathan Wolf, Richard Davies, Massimo Mangino, Nicola Segata, Tim D Spector, and Ana M Valdes. [High intake of vegetables is linked to lower white blood cell profile and the effect is mediated by the gut microbiome](#). **BMC medicine**, 19:1–10, 2021. [I.F. 8.78].
- [108] Chloe Mirzayi, Audrey Renon, Cesare Furlanello, Susanna-Assunta Sansone, Fatima Zohra, Shaimaa Elsafoury, Ludwig Geistlinger, Lora J. Kasselmann, Kelly Eckenrode, Janneke van de Wiggert, Amy Loughman, Francine Z. Marques, David A. MacIntyre, Manimozhiyan Arumugam, Rimsha Azhar, Francesco Beghini, Kirk Bergstrom, Ami Bhatt, Jordan E. Bisanz, Jonathan Braun, Hector Corrada Bravo, Gregory A. Buck, Frederic Bushman, David Casero, Gerard Clarke, Maria Carmen Collado, Paul D. Cotter, John F. Cryan, Ryan T. Demmer, Suzanne Devkota, Eran Elinav, Juan S. Escobar, Jennifer Fettweis, Robert D. Finn, Anthony A. Fodor, Sofia Forslund, Andre Franke, Cesare Furlanello, Jack Gilbert, Elizabeth Grice, Benjamin Haibe-Kains, Scott Handley, Pamela Herd, Susan Holmes, Jonathan P. Jacobs, Lisa Karstens, Rob Knight, Dan Knights, Omry Koren, Douglas S. Kwon, Morgan Langille, Brianna Lindsay, Dermot McGovern, Alice C. McHardy, Shannon McWeeney, Noel T. Mueller, Luigi Nezi, Matthew Olm, Noah Palm, Edoardo Pasolli, Jeroen Raes, Matthew R. Redinbo, Malte Rühlemann, R. Balfour Sartor, Patrick D. Schloss, Lynn Schriml, Eran Segal, Michelle Shardell, Thomas Sharpton, Ekaterina Smirnova, Harry Sokol, Justin L. Sonnenburg, Sujatha Srinivasan, Louise B. Thingholm, Peter J. Turnbaugh, Vaibhav Upadhyay, Ramona L. Walls, Paul Wilmes, Takuji Yamada, Georg Zeller, Mingyu Zhang, Ni Zhao, Liping Zhao, Wenjun Bao, Aedin Culhane, Viswanath Devanarayan, Joaquin Dopazo, Xiaohui Fan, Matthias Fischer, Wendell Jones, Rebecca Kusko, Christopher E. Mason, Tim R. Mercer, Susanna-Assunta Sansone, Andreas Scherer, Leming Shi, Shraddha Thakkar, Weida Tong, Russ Wolfinger, Christopher Hunter, Nicola Segata, Curtis Huttenhower, Jennifer B. Dowd, Heidi E. Jones, and Levi Waldron. Reporting guidelines for human microbiome research: the storms checklist. **Nature Medicine**, 27:1885–1892, 2021. [I.F. 53.44].
- [109] Davide Serrano, Chiara Pozzi, Silvia Guglietta, Bruno Fosso, Mariano Suppa, Patrizia Gnagnarella, Federica Corso, Federica Bellerba, Debora Macis, Valentina Aristarco, Paolo Manghi, Nicola Segata, Cristina Trovato, Maria Giulia Zampino, Marinella Marzano, Bernardo Bonanni, Maria Rescigno, and Sara Gandini. [Microbiome as mediator of diet on colorectal cancer risk: The role of Vitamin D, markers of inflammation and adipokines](#). **Nutrients**, 13:1–19, 2021.
- [110] Safae Terrisse, Lisa Derosa, Valerio Iebba, François Ghiringhelli, Ines Vaz-luis, Guido Kroemer, Marine Fidelle, Stergios Christodoulidis, Nicola Segata, Andrew Maltez Thomas, Anne-Laure Martin, Aude Sirven, Sibille Everhard, Fanny Aprahamian, Nitharsshini Nirmalathan, Romy Aarnoutse, Marjolein Smidt, Janine Ziemons, Carlos Caldas, Sibylle Loibl, Carsten Denkert, Sylvère Durand, Claudia Iglesias, Filippo Pietrantonio, Bertrand Routy, Fabrice Andre, Edoardo Pasolli, Suzette Delaloge, and Laurence Zitvogel. Intestinal microbiota influences clinical outcome and side effects of early breast cancer treatment. **Cell Death and Differentiation**, 28:2778–2796, 2021. [I.F. 15.83].
- [111] Adrian Tett, Edoardo Pasolli, Giulia Masetti, Danilo Ercolini, and Nicola Segata. Prevotella diversity, niches and interactions with the human host. **Nature Reviews Microbiology**, 19:585–599, 2021. [I.F. 34.21].
- [112] Andrew Maltez Thomas, Francesco Asnicar, Guido Kroemer, and Nicola Segata. [Genes Encoding Microbial Acyl Coenzyme A Binding Protein/Diazepam-Binding Inhibitor Orthologs Are Rare in the Human Gut Microbiome and Show No Links to Obesity](#). **Applied and environmental microbiology**, 87:e00471–21, 2021. [I.F. 4.79].
- [113] Michele Tomasi, Mattia Dalsass, Francesco Beghini, Ilaria Zanella, Elena Caproni, Laura Fantappiè, Assunta Gagliardi, Carmela Irene, Enrico König, Luca Frattini, Giulia Masetti, Samine Jessica Isaac, Federica Armanini, Fabio Cumbo, Aitor Blanco-míguez, Alberto Grandi, Nicola Segata, and Guido Grandi. Commensal bifidobacterium strains enhance the efficacy of neo-epitope based cancer vaccines. **Vaccines**, 9:1–19, 2021.
- [114] Atara Uzan-Yulzari, Olli Turta, Anna Belogolovski, Oren Ziv, Christina Kunz, Sarah Pershbach, Hadar Neuman, Edoardo Pasolli, Aia Oz, Hila Ben-Amram, Himanshu Kumar, Helena Ollila, Anne Kaljonen,

- Erika Isolauri, Seppo Salminen, Hanna Lagstrom, [Nicola Segata](#), Itai Sharon, Yoram Louzoun, Regina Ensenauer, Samuli Rautava, and Omry Koren. [Neonatal antibiotic exposure impairs child growth during the first six years of life by perturbing intestinal microbial colonization](#). **Nature Communications**, 12, 2021. [I.F. 12.12].
- [115] Marsha C Wibowo, Zhen Yang, Maxime Borry, Alexander Hübner, Kun D Huang, Braden T Tierney, Samuel Zimmerman, Francisco Barajas-Olmos, Cecilia Contreras-Cubas, Humberto García-Ortiz, Angélica Martínez-Hernández, Jacob M Luber, Philipp Kirstahler, Tre Blohm, Francis E Smiley, Richard Arnold, Sonia A Ballal, Sünje Johanna Pamp, Julia Russ, Frank Maixner, Omar Rota-Stabelli, [Nicola Segata](#), Karl Reinhard, Lorena Orozco, Christina Warinner, Meradeth Snow, Steven LeBlanc, and Aleksandar D Kostic. [Reconstruction of ancient microbial genomes from the human gut](#). **Nature**, 594:234–239, 2021. [I.F. 49.96].
- [116] Francesco Asnicar, Andrew Maltez Thomas, Francesco Beghini, Claudia Mengoni, Serena Manara, Paolo Manghi, Qiyun Zhu, Mattia Bolzan, Fabio Cumbo, Uyen May, Jon G Sanders, Moreno Zolfo, Evguenia Kopylova, Edoardo Pasolli, Rob Knight, Siavash Mirarab, Curtis Huttenhower, and [Nicola Segata](#). [Precise phylogenetic analysis of microbial isolates and genomes from metagenomes using PhyloPhlAn 3.0](#). **Nature Communications**, 11, 2020. [I.F. 12.12].
- [117] Giovanni Bacci, Giovanni Taccetti, Daniela Dolce, Federica Armanini, [Nicola Segata](#), Francesca Di Cesare, Vincenzina Lucidi, Ersilia Fiscarelli, Patrizia Morelli, Rosaria Casciaro, Anna Negroni, Alessio Mengoni, and Annamaria Bevivino. Untargeted metagenomic investigation of the airway microbiome of cystic fibrosis patients with moderate-severe lung disease. **Microorganisms**, 8:1–18, 2020.
- [118] Sarah E Berry, Ana M Valdes, David A Drew, Francesco Asnicar, Mohsen Mazidi, Jonathan Wolf, Joan Capdevila, George Hadjigeorgiou, Richard Davies, Haya Al Khatib, Christopher Bonnet, Sajaysura Ganesh, Elco Bakker, Deborah Hart, Massimo Mangino, Jordi Merino, Inbar Linenberg, Patrick Wyatt, Jose M Ordovas, Christopher D Gardner, Linda M Delahanty, Andrew T Chan*, [Nicola Segata*](#), Paul W Franks*, and Tim D Spector*. [Human postprandial responses to food and potential for precision nutrition](#). **Nature Medicine**, 26:964–973, 2020. [I.F. 36.13].
- [119] Giacomo Caio, Lisa Lungaro, [Nicola Segata](#), Matteo Guarino, Giorgio Zoli, Umberto Volta, and Roberto De Giorgio. Effect of gluten-free diet on gut microbiota composition in patients with celiac disease and non-celiac gluten/wheat sensitivity. **Nutrients**, 12:1–23, 2020. [I.F. 4.17].
- [120] Maria Carmen Collado and [Nicola Segata](#). [Initial exploration of in utero microbial colonization](#). **Nature Medicine (News & Views commentary)**, 26:469–470, 2020. [I.F. 36.13].
- [121] Romain Daillère, Lisa Derosa, Mélodie Bonvalet, [Nicola Segata](#), Bertrand Routy, Camille Chaudonneret, Manuela Gariboldi, Eva Budinská, Lucie Heinzerling, Jolanda De Vries, Alessio Naccarati, Valérie Zitvogel, Carlos Caldas, Lars Engstrand, Aude Sirven, Anne-Laure Martin, Carsten Denkert, Sibylle Loibl, Jacques Fieschi, Guido Kroemer, and Laurence Zitvogel. [Trial Watch : The gut microbiota as a tool to boost the clinical efficacy of anticancer immunotherapy](#). **OncImmunology**, 9, 2020. [I.F. 4.91].
- [122] Lisa Derosa, Bertrand Routy, Marine Fidelle, Valerio Iebba, Laurie Alla, Edoardo Pasolli, [Nicola Segata](#), Aude Desnoyer, Filippo Pietrantonio, Gladys Ferrere, Jean Eudes Fahrner, Emmanuelle Le Chatellier, Nicolas Pons, Nathalie Galleron, Hugo Roume, Connie P.M. Duong, Laura Mondragón, Kristina Iribarren, Mélodie Bonvalet, Safae Terrisse, Conrad Rauber, Anne Gaëlle Goubet, Romain Daillère, Fabien Lemaitre, Anna Reni, Beatrice Casu, Maryam Tidjani Alou, Carolina Alves Costa Silva, Didier Raoult, Karim Fizazi, Bernard Escudier, Guido Kroemer, Laurence Albiges, and Laurence Zitvogel. [Gut Bacteria Composition Drives Primary Resistance to Cancer Immunotherapy in Renal Cell Carcinoma Patients](#). **European Urology**, 78:195–206, 2020. [I.F. 17.58].
- [123] Aurélie Fluckiger, Romain Daillère, Mohamed Sassi, Barbara S Sixt, Peng Liu, Loos Friedemann, Richard Corentin, Catherine Rabu, Maryam T Alou, Anne-Gaëlle Goubet, Fabien Lemaitre, Gladys Ferrere, Lisa Derosa, Connie PM Duong, Meriem Messaoudene, Andréanne Gagné, Philippe Joubert, Luisa De Sordi, Laurent Debarbieux, Sylvain Simon, Clara-Maria Scarlata, Maha Ayyoub, Belinda Parlermo, Francesco Facciolo, Romain Boidot, Richard Wheeler, Ivo G Boneca, Zsófia Sztupinszki, Krisztian Papp, Istvan Csabai, Edoardo Pasolli, [Nicola Segata](#), Carlos Lopez-Otin, Zoltan Szallasi, Fabrice Andre, Valerio Iebba, Valentin Quiniou, David Klatzmann, Jacques Boukhalil, Saber Khelaifia, Didier Raoult, Laurence Albiges, Bernard Escudier, Alexander Eggermont, Fathia Mami-Chouaib, Paola Nistico, François Ghiringhelli, Bertrand Routy, Nathalie Labarrière, Vincent Cattoir, Guido Kroemer, and Laurence Zitvogel. [Cross-reactivity between MHC class I-restricted antigens and an enterococcal bacteriophage](#). **Science**, 369:936–942, 2020. [I.F. 41.06].

- [124] Paola Foladori, Francesca Cutrupi, [Nicola Segata](#), Serena Manara, Federica Pinto, Francesca Malpei, Laura Bruni, and Giuseppina La Rosa. [SARS-CoV-2 from faeces to wastewater treatment: what do we know? A review](#). **Science of the Total Environment**, 730:1–12, 2020. [I.F. 6.55].
- [125] Paolo Ghensi, Paolo Manghi, Moreno Zolfo, Federica Armanini, Edoardo Pasolli, Mattia Bolzan, Alberto Bertelle, Federico Dell'Acqua, Ester Dellasega, Romina Waldner, Francesco Tessarolo, Cristiano Tomasi, and [Nicola Segata](#). Strong oral plaque microbiome signatures for dental implant diseases identified by strain-resolution metagenomics. **npj Biofilms and Microbiomes**, 47, 2020. [I.F. 7.08].
- [126] Gianluca Ianaro, Ernesto Rossi, Andrew Maltez Thomas, Giovanni Schinzari, Luca Masucci, Gianluca Quaranta, Carlo Romano Settanni, Loris Riccardo Lopetuso, Federica Armanini, Aitor Blanco-Miguez, Francesco Asnicar, Clarissa Consolandi, Roberto Iacovelli, Maurizio Sanguinetti, Giampaolo Tortora, Antonio Gasbarrini, [Nicola Segata*](#), and Giovanni Cammarota*. [Faecal microbiota transplantation for the treatment of diarrhoea induced by tyrosine-kinase inhibitors in patients with metastatic renal cell carcinoma](#). **Nature Communications**, 11, 2020. [I.F. 12.12].
- [127] Nicolai Karcher, Edoardo Pasolli, Francesco Asnicar, Kun Huang, Adrian Tett, Serena Manara, Federica Armanini, Debbie Bain, Sylvia H Duncan, Petra Louis, Moreno Zolfo, Paolo Manghi, Mireia Vallescolomer, Roberta Raffaetà, Omar Rota-Stabelli, Maria Carmen Collado, Georg Zeller, Daniel Falush, Frank Maixner, Alan W Walker, Curtis Huttenhower, and [Nicola Segata](#). [Analysis of 1,321 Eubacterium rectale genomes from metagenomes uncovers complex phylogeographic population structures and subspecies functional adaptations](#). **Genome Biology**, 21, 2020. [I.F. 14.03].
- [128] Thomas Yssing Michaelsen, Jakob Brandt, Caitlin Singleton, Rasmus Hansen Kirkegaard, [Nicola Segata](#), and Mads Albertsen. [The signal and the noise - characteristics of antisense RNA in complex microbial communities](#). **mSystems**, 5:e00587–19, 2020. [I.F. 6.28].
- [129] Edoardo Pasolli, Francesca De Filippis, Italia E Mauriello, Fabio Cumbo, Aaron M Walsh, John Leech, Paul D Cotter, [Nicola Segata](#), and Danilo Ercolini. [Large-scale genome-wide analysis links lactic acid bacteria from food with the gut microbiome](#). **Nature Communications**, 11, 2020. [I.F. 12.12].
- [130] Serena Petrini, Paola Foladori, Francesco Beghini, Federica Armanini, [Nicola Segata](#), and Gianni Andreotola. [How inoculation affects the development and the performances of microalgal-bacterial consortia treating real municipal wastewater](#). **Journal of Environmental Management**, 263:110427, 2020. [I.F. 4.17].
- [131] Nan Qin, Peng Liang, Chunyan Wu, Guanqun Wang, Qian Xu, Xiao Xiong, Tingting Wang, Moreno Zolfo, [Nicola Segata](#), Huanlong Qin, Rob Knight, Jack A. Gilbert, and Ting F. Zhu. [Longitudinal survey of microbiome associated with particulate matter in a megacity](#). **Genome biology**, 21:55, 2020. [I.F. 14.03].
- [132] Matthias Scholz, Davide Albanese, Kieran Tuohy, Claudio Donati, [Nicola Segata *](#), and Omar Rota-Stabelli *. Large scale genome reconstructions illuminate wolbachia evolution. **Nature Communications**, 11, 2020. [I.F. 12.12].
- [133] Laura Selbmann, Zsigmond Benko, Claudia Coleine, Sybren de Hoog, Claudio Donati, Irina Druzhinina, Tamas Emri, Cassie L Ettinger, Amy S Gladfelter, Anna A Gorbushina, Igor V Grigoriev, Martin Grube, Nina Gunde-Cimerman, Christa Pennacchio, Walter P Pfliegler, Istvan Pocs, Valeria Prigione, Meritxell Riquelme, Nicola Segat, Julia Schumacher, Ekaterina Shelest, Katja Sterflinger, Donatella Tesei, Jana M U'Ren, Giovanna C Varese, Xabier Vazquez-Campos, Vania A Vicente, Emanuel M Souza, Polona Zalar, Allison K Walker, and Jason Stajich. Shed light in the dark lineages of the fungal tree of life — stres. **Life**, 10:1–13, 2020.
- [134] J. R. Swann, M. Rajilic-Stojanovic, A. Salonen, O. Sakwinska, C. Gill, A. Meynier, P. Fança-Berthon, B. Schelkle, [Nicola Segata](#), C. Shortt, K. Tuohy, and O. Hasselwander. [Considerations for the design and conduct of human gut microbiota intervention studies relating to foods](#). **European Journal of Nutrition**, 2020. [I.F. 4.45].
- [135] David Wylensek, Thomas C. A. Hitch, Thomas Riedel, Afrizal Afrizal, Neeraj Kumar, Esther Wortmann, Tianzhe Liu, Saravanan Devendran, Till R Lesker, Sara B Hernández, Viktoria Heine, Eva M Buhl, Paul D'agostino, Fabio Cumbo, Thomas Fischöder, Marzena Wyschkon, Torey Looft, Valeria R Parreira, Birte Abt, Heidi L Doden, Lindsey Ly, João MP Alves, Markus Reichlin, Krzysztof Flisikowski, Laura Navarro Suarez, Anthony P Neumann, Garret Suen, Tomas de Wouters, Sascha Rohn, Ilias Lagkouvardos, Emma Allen-Vercoe, Cathrin Spröer, Boyke Bunk, Anja J Taverne-Thiele, Marcel Giesbers, Jerry M Wells, Klaus Neuhaus, Angelika Schnieke, Felipe Cava, [Nicola Segata](#), Lothar Elling, Till Strowig, Jason M Ridlon,

- Tobias AM Gulder, Jörg Overmann, and Thomas Clavel. A collection of bacterial isolates from the pig intestine reveals functional and taxonomic diversity. **Nature Communications**, 11, 2020.
- [136] Elena Zagato, Chiara Pozzi, Alice Bertocchi, Tiziana Schioppa, Fabiana Saccheri, Silvia Guglietta, Bruno Fosso, Laura Melocchi, Giulia Nizzoli, Jacopo Troisi, Marinella Marzano, Bianca Oresta, Ilaria Spadoni, Koji Atarashi, Sara Carloni, Stefania Arioli, Giulia Fornasa, Francesco Asnicar, Nicola Segata, Simone Guglielmetti, Kenya Honda, Graziano Pesole, William Vermi, Giuseppe Penna, and Maria Rescigno. [Endogenous murine microbiota member *Faecalibaculum rodentium* and its human homologue protect from intestinal tumor growth](#). **Nature Microbiology**, 5:511–524, 2020. [I.F. 14.30].
- [137] Francesco Beghini, Audrey Renson, Christine P. Zolnik, Ludwig Geistlinger, Mykhaylo Usyk, Thomas U. Moody, Lorna Thorpe, Jennifer B. Dowd, Robert Burk, Nicola Segata, Heidi E. Jones, and Levi Waldron. [Tobacco exposure associated with oral microbiota oxygen utilization in the New York City Health and Nutrition Examination Study](#). **Annals of Epidemiology**, 34:18–25.e3, 2019. [I.F. 2.8].
- [138] Evan Bolyen, Jai Ram Rideout, Matthew R Dillon, Nicholas A Bokulich, Christian Abnet, Gabriel A Al-Ghalith, Harriet Alexander, Eric J Alm, Manimozhiyan Arumugam, Francesco Asnicar, Yang Bai, Jordan E Bisanz, Kyle Bittinger, Asker Brejnrod, Colin J Brislawn, C Titus Brown, Benjamin J Callahan, Andrés Mauricio Caraballo-Rodríguez, John Chase, Emily Cope, Ricardo Da Silva, Pieter C Dorrestein, Gavin M Douglas, Daniel M Durall, Claire Duvallet, Christian F Edwardson, Madeleine Ernst, Mehrbod Estaki, Jennifer Fouquier, Julia M Gauglitz, Deanna L Gibson, Antonio Gonzalez, Kestrel Gorlick, Jiarong Guo, Benjamin Hillmann, Susan Holmes, Hannes Holste, Curtis Huttenhower, Gavin Huttley, Stefan Janssen, Alan K Jarmusch, Lingjing Jiang, Benjamin Kaehler, Kyo Bin Kang, Christopher R Keefe, Paul Keim, Scott T Kelley, Dan Knights, Irina Koester, Tomasz Kosciolk, Jorden Kreps, Morgan G Langille, Joslynn Lee, Ruth Ley, Yong-Xin Liu, Erikka Loftfield, Catherine Lozupone, Massoud Maher, Clarisse Marotz, Bryan Martin, Daniel McDonald, Lauren J McIver, Alexey V Melnik, Jessica L Metcalf, Sydney C Morgan, Jamie Morton, Ahmad Turan Naimey, Jose A Navas-Molina, Louis Felix Nothias, Stephanie B Orchanian, Talima Pearson, Samuel L Peoples, Daniel Petras, Mary Lai Preuss, Elmar Priesse, Lasse Buur Rasmussen, Adam Rivers, II Michael S Robeson, Patrick Rosenthal, Nicola Segata, Michael Shaffer, Arron Shiffer, Rashmi Sinha, Se Jin Song, John R Spear, Austin D Swafford, Luke R Thompson, Pedro J Torres, Pauline Trinh, Anupriya Tripathi, Peter J Turnbaugh, Sabah Ul-Hasan, Justin JJ van der Hooft, Fernando Vargas, Yoshiki Vázquez-Baeza, Emily Vogtmann, Max von Hippel, William Walters, Yunhu Wan, Mingxun Wang, Jonathan Warren, Kyle C Weber, Chase HD Williamson, Amy D Willis, Zhenjiang Zech Xu, Jesse R Zaneveld, Yilong Zhang, Rob Knight, and J Gregory Caporaso. [Reproducible, interactive, scalable and extensible microbiome data science using QIIME 2](#). **Nature Biotechnology**, 37:848–857, 2019. [I.F. 35.7].
- [139] Daniela Dolce, Stella Neri, Laura Grisotto, Silvia Campana, Novella Ravenni, Francesca Miselli, Erica Camera, Lucia Zavataro, Cesare Braggion, Ersilia Fiscarelli, Vincenzina Lucidi, Lisa Cariani, Daniela Girelli, Nadia Faelli, Carla Colombo, Cristina Lucanto, Mariangela Lombardo, Giuseppe Magazzu, Antonella Tosco, Valeria Raia, Serena Manara, Edoardo Pasolli, Federica Armanini, Nicola Segata, Annibale Biggeri, and Giovanni Taccetti. [Methicillin-resistant *Staphylococcus aureus* eradication in cystic fibrosis patients: a randomized multicenter study](#). **PLOS ONE**, 14, 2019.
- [140] Hannah Fehlner-Peach, Cara Magnabosco, Varsha Raghavan, Jose U Scher, Adrian Tett, Laura M Cox, Claire Gottsegen, Aaron Watters, John D Wiltshire-Gordon, Nicola Segata, Richard Bonneau, and Dan R Littman. Distinct polysaccharide growth profiles of human intestinal prevotella copri isolates. **Cell host & microbe**, 26:680–690, 2019. [I.F. 17.87].
- [141] Francesca De Filippis, Edoardo Pasolli, Adrian Tett, Sonia Tarallo, Alessio Naccarati, Maria De Angelis, Erasmo Neviani, Luca Cocolin, Marco Gobetti, Nicola Segata, and Danilo Ercolini. [Distinct genetic and functional strains of human intestinal *Prevotella copri* are associated with different habitual diets](#). **Cell Host & Microbe**, 25:444–453, 2019. [I.F. 17.87].
- [142] Paolo Ghensi, Elia Bettio, Devid Maniglio, Emiliana Bonomi, Federico Piccoli, Silvia Gross, Patrizio Caciagli, Nicola Segata, Giandomenico Nollo, and Francesco Tassarolo. Dental implants with anti-biofilm properties: A pilot study for developing a new sericin-based coating. **Materials**, 12:1–15, 2019.
- [143] Luigi Francesco Iannone, Alberto Preda, Hervé M Blottière, Gerard Clarke, Diego Albani, Vincenzo Belcastro, Marco Carotenuto, Annamaria Cattaneo, Rita Citraro, Cinzia Ferraris, Francesca Ronchi, Gaia Lungo, Elisa Santocchi, Letizia Guiducci, Pietro Baldelli, Paola Iannetti, Sigrid Pedersen, Andrea Petretto, Stefania Provasi, Kaja Selmer, Alberto Spalice, Anna Tagliabue, Alberto Verrotti, Nicola Segata, Jakob Zimmermann, Carlo Minetti, Paolo Mainardi, Carmen Giordano, Sanjay Sisodiya, Federico Zara, Emilio

- Russo, and Pasquale Striano. [Microbiota-gut brain axis involvement in neuropsychiatric disorders](#). **Expert review of neurotherapeutics**, pages 1–14, 2019.
- [144] Andrew McBain, Catherine O'Neill, Alejandro Amézquita, Laura Price, Karoline Faust, Adrian Tett, Nicola Segata, Jonathan Swann, Adrian Smith, Barry Murphy, Mike Hoptroff, Gordon James, Yugandhar Reddy, Anindya Dasgupta, Thomas Ross, Iain Chapple, William Wade, and Judith Fernandez-Piquer. [Consumer Safety Considerations of Skin and Oral Microbiome Perturbation](#). **Clinical Microbiology Reviews**, 32:e00051–19, 2019. [I.F. 17.4].
 - [145] Edoardo Pasolli, Francesco Asnicar, Serena Manara, Moreno Zolfo, Nicolai Karcher, Federica Armanini, Francesco Beghini, Paolo Manghi, Adrian Tett, Paolo Ghensi, Maria Carmen Collado, Benjamin L Rice, Casey DuLong, Xochitl C Morgan, Christopher D Golden, Christopher Quince, Curtis Huttenhower, and Nicola Segata. [Extensive unexplored human microbiome diversity revealed by over 150,000 genomes from metagenomes spanning age, geography, and lifestyle](#). **Cell**, 176:649–662, 2019. [I.F. 31.40].
 - [146] Renato Pedron, Alfonso Esposito, Irene Bianconi, Edoardo Pasolli, Adrian Tett, Francesco Asnicar, Mario Cristofolini, Nicola Segata, and Olivier Jousson. [Genomic and metagenomic insights into the microbial community of a thermal spring](#). **Microbiome**, 7, 2019. [I.F. 10.5].
 - [147] Audrey Renson, Heidi E. Jones, Francesco Beghini, Nicola Segata, Christine P. Zolnik, Mykhaylo Usyk, Thomas U. Moody, Lorna Thorpe, Robert Burk, Levi Waldron, and Jennifer B. Dowd. [Sociodemographic variation in the oral microbiome](#). **Annals of Epidemiology**, 35:73–80.e2, 2019. [I.F. 2.8].
 - [148] Lucas Schiffer, Rimsha Azhar, Lori Shepherd, Marcel Ramos, Ludwig Geistlinger, Curtis Huttenhower, Jennifer B. Dowd, Nicola Segata, and Levi Waldron. [HMP16SData: Efficient Access to the Human Microbiome Project Through Bioconductor](#). **American journal of epidemiology**, 188:1023–1026, 2019. [I.F. 4.5].
 - [149] Nicola Segata. [No bacteria found in healthy placentas](#). **Nature (News & Views commentary)**, 572:317–318, 2019. [I.F. 41.6].
 - [150] Sonia Tarallo, Giulio Ferrero, Gaetano Gallo, Antonio Francavilla, Giuseppe Clerico, Alberto Realis Luc, Paolo Manghi, Andrew Maltez Thomas, Paolo Vineis, Nicola Segata, Barbara Pardini, Alessio Naccarati, and Francesca Cordero. [Altered fecal small RNA profiles in colorectal cancer reflect gut microbiome composition in stool samples](#). **mSystems**, 4:e00289–19, 2019. [I.F. 5.8].
 - [151] Adrian Tett, Kun Huang, Francesco Asnicar, Hannah Fehlner-Peach, Edoardo Pasolli, Nicolai Karcher, Federica Armanini, Paolo Manghi, Kevin Bonham, Moreno Zolfo, Francesca De Filippis, Cara Magnabosco, Richard Bonneau, John Lusingu, John Amuasi, Karl Reinhard, Thomas Rattei, Fredrik Boulund, Lars Engstrand, Albert Zink, Maria Carmen Collado, Dan Littman, Daniel Eibach, Danilo Ercolini, Omar Rota-Stabelli, Curtis Huttenhower, Frank Maixner, and Nicola Segata. [The Prevotella copri complex comprises four distinct clades underrepresented in Westernized populations](#). **Cell Host & Microbe**, 26:666–679, 2019. [I.F. 17.87].
 - [152] Andrew Maltez Thomas, Paolo Manghi, Francesco Asnicar, Edoardo Pasolli, Federica Armanini, Moreno Zolfo, Francesco Beghini, Serena Manara, Nicolai Karcher, Chiara Pozzi, Sara Gandini, Davide Serrano, Sonia Tarallo, Antonio Francavilla, Gaetano Gallo, Mario Trompetto, Giulio Ferrero, Sayaka Mizutani, Hirotugu Shiroma, Satoshi Shiba, Tatsuhiro Shibata, Shinichi Yachida, Takuji Yamada, Jacob Wirbel, Petra Schrotz-King, Cornelia M Ulrich, Hermann Brenner, Manimozhayan Arumugam, Peer Bork, Georg Zeller, Francesca Cordero, Emmanuel Dias-Neto, Joao Carlos Setubal, Adrian Tett, Barbara Pardini, Maria Rescigno, Levi Waldron, Alessio Naccarati, and Nicola Segata. [Metagenomic analysis of colorectal cancer datasets identifies cross-cohort microbial diagnostic signatures and a link with choline degradation](#). **Nature Medicine**, 25:667–678, 2019. [I.F. 32.62].
 - [153] Andrew Maltez Thomas and Nicola Segata. [Multiple levels of the unknown in microbiome research](#). **BMC Biology**, 17, 2019. [I.F. 6.7].
 - [154] Levi Waldron, Lucas Schiffer, Rimsha Azhar, Marcel Ramos, Ludwig Geistlinger, and Nicola Segata. Waldron et al. reply to "commentary on the hmp16sdata bioconductor package". **American journal of epidemiology**, 188:1031–1032, 2019. [I.F. 4.5].
 - [155] Jacob Wirbel, Pyl Paul Theodor, Ece Kartal, Konrad Zych, Alireza Kashani, Alessio Milanese, Fleck Jonas S, Voigt Anita Y, Albert Palleja, Ruby Ponnudurai, Shinichi Sunagawa, Coelho Luis Pedro, Petra Schrotz-King, Emily Vogtmann, Nina Habermann, Emma Niméus, Andrew Thomas, Paolo Manghi, Sara Gandini, Davide Serrano, Sayaka Mizutani, Hirotugu Shiroma, Satoshi Shiba, Tatsuhiro Shibata, Shinichi

- Yachida, Takuji Yamada, Levi Waldron, Alessio Naccarati, Nicola Segata, Rashmi Sinha, Cornelia M Ulrich, Hermann Brenner, Manimozhiyan Arumugam, Peer Bork, and Georg Zeller. [Meta-analysis of fecal metagenomes reveals global microbial signatures that are specific for colorectal cancer](#). **Nature Medicine**, 25:679–689, 2019. [I.F. 32.62].
- [156] Sander Wuyts and Nicola Segata. [At the forefront of the sequencing revolution - notes from the RNGS19 conference](#). **Genome Biology**, 20:19–21, 2019. [I.F. 14.03].
- [157] Qiyum Zhu, Uyen Mai, Wayne Pfeiffer, Stefan Janssen, Francesco Asnicar, Jon G Sanders, Pedro Belda-Ferre, Gabriel A Al-Ghalith, Evguenia Kopylova, Daniel McDonald, Tomasz Kosciolk, John B Yin, Shi Huang, Nimaichand Salam, Jian-Yu Jiao, Zijun Wu, Zhenjiang Z Xu, Kalem Cantrell, Yimeng Yang, Erfan Sayyari, Maryam Rabiee, James T Morton, Sheila Podell, Dan Knights, Wen-Jun Li, Curtis Huttenhower, Nicola Segata, Larry Smarr, Siavash Mirarab, and Rob Knight. [Phylogenomics of 10,575 genomes reveals evolutionary proximity between domains bacteria and archaea](#). **Nature Communications**, 10, 2019. [I.F. 12.12].
- [158] Erik Dassi, Pamela Ferretti, Giuseppina Covello, HTM-CMB-2015, Roberto Bertorelli, Michela A Denti, Veronica De Sanctis, Adrian Tett, and Nicola Segata. [The short-term impact of probiotic consumption on the oral cavity microbiome](#). **Scientific Reports**, 8, 2018. [I.F. 4.12].
- [159] Pamela Ferretti, Edoardo Pasolli, Adrian Tett, Francesco Asnicar, Valentina Gorfer, Sabina Fedi, Federica Armanini, Duy Tin Truong, Serena Manara, Moreno Zolfo, Francesco Beghini, Roberto Bertorelli, Veronica De Sanctis, Ilaria Bariletti, Rosarita Canto, Rosanna Clementi, Marina Cologna, Tiziana Crifò, Giuseppina Cusumano, Stefania Gottardi, Claudia Innamorati, Caterina Masè, Daniela Postai, Daniela Savoi, Sabrina Duranti, Gabriele A Andrea, Leonardo Mancabelli, Francesca Turrone, Chiara Ferrario, Christian Milani, Marta Mangifesta, Rosaria Anzalone, Alice Viappiani, Moran Yassour, Hera Vlamakis, Ramnik Xavier, Maria Carmen Collado, Omry Koren, Saverio Tateo, Massimo Soffiati, Anna Pedrotti, Marco Ventura, Curtis Huttenhower, Peer Bork, and Nicola Segata. [Mother-to-infant microbial transmission from different body sites shapes the developing infant gut microbiome](#). **Cell Host & Microbe**, 24:133–145, 2018. [I.F. 17.87].
- [160] Eric A Franzosa, Lauren J Mciver, Gholamali Rahnnavard, Luke R Thompson, Melanie Schirmer, George Weingart, Karen Schwarzberg Lipson, Rob Knight, Gregory Caporaso, Nicola Segata, and Curtis Huttenhower. [Species-level functional profiling of metagenomes and metatranscriptomes](#). **Nature Methods**, 15:962–968, 2018. [I.F. 26.92].
- [161] Daniel Kissling, Jorge Ahumada, Anne Bowser, Miguel Fernandez, Nestor Fernandez, Enrique Alonso Garcia, Robert Guralnick, Nick Isaac, Steve Kelling, Wouter Los, Louise McRae, Jean-Baptiste Mihoub, Matthias Obst, Monica Santamaria, Andrew Skidmore, Kristen Williams, Donat Agosti, Daniel Amariles, Christos Arvanitidis, Lucy Bastin, Francesca De Leo, Willi Egloff, Jane Elith, Donald Hobern, David Martin, Henrique Pereira, Graziano Pesole, Johannes Peterseil, Hannu Saarenmaa, Dmitry Schigel, Dirk Schmeller, Nicola Segata, Eren Turak, Paul Uhler, Brian Wee, and Alex Hardisty. [Building essential biodiversity variables \(EBVs\) of species distribution and abundance at a global scale](#). **Biological Reviews**, 93:600–625, 2018. [I.F. 11.61].
- [162] Katri Korpela, Paul Costea, Luis Pedro Coelho, Stefanie Kandels-Lewis, Gonneke Willemsen, Dorret I Boomsma, Nicola Segata, and Peer Bork. [Selective maternal seeding and environment shape the human gut microbiome](#). **Genome Research**, 28:561–568, 2018. [I.F. 11.28].
- [163] Serena Manara, Edoardo Pasolli, Daniela Dolce, Novella Ravenni, Silvia Campana, Federica Armanini, Francesco Asnicar, Alessio Mengoni, Luisa Galli, Carlotta Montagnani, Elisabetta Venturini, Omar Rota-Stabelli, Guido Grandi, Giovanni Taccetti, and Nicola Segata. [Whole-genome epidemiology, characterization, and phylogenetic reconstruction of Staphylococcus aureus in a paediatric hospital](#). **Genome Medicine**, 10, 2018. [I.F. 8.90].
- [164] Federica Pinto, Adrian Tett, Federica Armanini, Francesco Asnicar, Adriano Boscaini, Edoardo Pasolli, Moreno Zolfo, Claudio Donati, Nico Salmaso, and Nicola Segata. [Draft genome sequences of novel Pseudomonas, Flavobacterium, and Sediminibacterium strains from a freshwater ecosystem](#). **Genome Announcements**, pages 2–4, 2018.
- [165] Nicola Segata. [On the road to strain-resolved comparative metagenomics](#). **mSystems**, 3, 2018. [I.F. 5.75].

- [166] Heba Shaaban, David A. Westfall, Rawhi Mohammad, David Danko, Daniela Bezdan, Ebrahim Afshinekoo, [Nicola Segata](#), and Christopher E. Mason. [The Microbe Directory: An annotated, searchable inventory of microbes' characteristics](#). **Gates Open Research**, 2018.
- [167] Angelo Joshua Victoria, Ernelea Cao, Nico Salmaso, Nicola Segata, and Claudio Donati. [Draft Genome Sequence of the Cadmium-Resistant Strain JJU2, Belonging to the Family *Hapalosiphonaceae* of the *Cyanobacteria*](#). **Microbiology Resource Announcements**, 7:4–5, 2018.
- [168] Moran Yassour, Larson Hogstrom, Eeva Jason, Heli Siljander, Jenni Selvenius, Sami Oikarinen, Heikki Hyöty, Jorma Ilonen, Suvi Virtanen, Pamela Ferretti, Edoardo Pasolli, Adrian Tett, Francesco Asnicar, [Nicola Segata](#), Hera Vlamakis, Eric Lander, Curtis Huttenhower, Mikael Knip, and Ramnik Xavier. [Strain-level analysis of mother-to-child bacterial transmission during the first few months of life](#). **Cell Host & Microbe**, 24:146–154, 2018. [I.F. 17.87].
- [169] Moreno Zolfo, Francesco Asnicar, Paolo Manghi, Edoardo Pasolli, Adrian Tett, and [Nicola Segata](#). [Profiling microbial strains in urban environments using metagenomic sequencing data](#). **Biology Direct**, 13, 2018.
- [170] Francesco Asnicar, Serena Manara, Moreno Zolfo, Duy Tin Truong, Matthias Scholz, Federica Armanini, Pamela Ferretti, Valentina Gorfer, Anna Pedrotti, Adrian Tett, and [Nicola Segata](#). [Studying vertical microbiome transmission from mothers to infants by strain-level metagenomic profiling](#). **mSystems**, 2, 2017.
- [171] Giovanni Bacci, Alessio Mengoni, Ersilia Fiscarelli, [Nicola Segata](#), Giovanni Taccetti, Daniela Dolce, Patrizia Paganin, Patrizia Morelli, Vanessa Tuccio, Alessandra De Alessandri, Vincenzina Lucidi, and Annamaria Bevivino. [A Different Microbiome Gene Repertoire in the Airways of Cystic Fibrosis Patients with Severe Lung Disease](#). **International Journal of Molecular Sciences**, 18:1654, 2017.
- [172] Francesco Beghini, Edoardo Pasolli, Duy Tin Truong, Lorenza Putignani, Simone Caccio, and [Nicola Segata](#). [Large-scale comparative metagenomics of Blastocystis, a common member of the human gut microbiome](#). **ISME Journal**, 11:2848–2863, 2017. [I.F. 9.30].
- [173] Sabrina Duranti, Gabriele Andrea Lugli, Leonardo Mancabelli, Federica Armanini, Francesca Turrone, Kieran James, Pamela Ferretti, Valentina Gorfer, Chiara Ferrario, Christian Milani, Marta Mangifesta, Rosaria Anzalone, Moreno Zolfo, Alice Viappiani, Edoardo Pasolli, Ilaria Bariletti, Rosarita Canto, Rosanna Clementi, Marina Cologna, Tiziana Crifò, Giuseppina Cusumano, Sabina Fedi, Stefania Gottardi, Claudia Innamorati, Caterina Masè, Daniela Postai, Daniela Savoi, Massimo Soffiati, Saverio Tateo, Anna Pedrotti, [Nicola Segata](#), Douwe van Sinderen, and Marco Ventura. [Maternal inheritance of bifidobacterial communities and bifidophages in infants through vertical transmission](#). **Microbiome**, 5:66, 2017. [I.F. 8.50].
- [174] Tarcisio Fedrizzi, Conor J Meehan, Antonella Grottole, Elisabetta Giacobazzi, Fregni Serpini, Sara Tagli-azucchi, Anna Fabio, Clotilde Bettua, Roberto Bertorelli, Veronica De Sanctis, Fabio Rumpianesi, Monica Pecorari, Olivier Jousson, Enrico Tortoli, and [Nicola Segata](#). [Genomic characterization of Nontuberculous Mycobacteria](#). **Scientific Reports**, 7:1–19, 2017. [I.F. 5.23].
- [175] Pamela Ferretti, Stefania Farina, Mario Cristofoloni, Giampiero Girolomoni, Adrian Tett, and [Nicola Segata](#). [Experimental metagenomics and ribosomal profiling of the human skin microbiome](#). **Experimental Dermatology**, 26:211–219, 2017. [I.F. 2.67].
- [176] Lauren J Mciver, Galeb Abu-ali, Eric A Franzosa, Randall Schwager, Xochitl C. Morgan, Levi Waldron, [Nicola Segata](#), and Curtis Huttenhower. [bioBakery: A meta'omic analysis environment](#). **Bioinformatics**, btx754, 2017. [I.F. 7.30].
- [177] Edoardo Pasolli, Lucas Schiffer, Paolo Manghi, Audrey Renson, Valerie Obenchain, Duy Tin Truong, Francesco Beghini, Faizan Malik, Marcel Ramos, Jennifer B Dowd, Curtis Huttenhower, Martin Morgan, [Nicola Segata*](#), and Levi Waldron*. [Accessible, curated metagenomic data through ExperimentHub](#). **Nature Methods**, 14:1023–1024, 2017. [I.F. 25.06].
- [178] Federica Pinto, Adrian Tett, Federica Armanini, Francesco Asnicar, Adriano Boscaini, Edoardo Pasolli, Moreno Zolfo, Claudio Donati, Nico Salmaso, and [Nicola Segata](#). [Draft Genome Sequence of the Planktic Cyanobacterium Tychonema bourrellyi, Isolated from Alpine Lentic Freshwater](#). **Genome Announcements**, 5:49–50, 2017.
- [179] Christopher Quince, Jared T Simpson, Alan W Walker, Nicholas J Loman, and [Nicola Segata](#). [Shotgun metagenomics, from sampling to analysis](#). **Nature Biotechnology**, 35:833–844, 2017. [I.F. 41.67].

- [180] Adrian Tett, Edoardo Pasolli, Stefania Farina, Duy Tin Truong, Francesco Asnicar, Moreno Zolfo, Francesco Beghini, Federica Armanini, Olivier Jousson, Veronica De Sanctis, Roberto Bertorelli, Giampiero Girolomoni, Mario Cristofolini, and Nicola Segata. [Unexplored diversity and strain-level structure of the skin microbiome associated with psoriasis](#). **npj Biofilms and Microbiomes**, 3:1–23, 2017.
- [181] Enrico Tortoli, Tarcisio Fedrizzi, Conor J Meehan, Antonella Grottola, Elisabetta Giacobazzi, Giulia Fregni, Sara Tagliazucchi, Anna Fabio, Clotilde Bettua, Francesca Frascaro, Veronica De Sanctis, Olivier Jousson, Nicola Segata, Daniela M Cirillo, Anna Fabio, Clotilde Bettua, Roberto Bertorelli, Francesca Frascaro, Veronica De Sanctis, Monica Pecorari, Olivier Jousson, Nicola Segata*, and Daniela M Cirillo*. [The new phylogeny of the genus Mycobacterium: The old and the news Enrico](#). **Infection, Genetics and Evolution**, 56:19–25, 2017.
- [182] Lorenzo Tosi, Viswanadham Sridhara, Yunlong Yang, Dongli Gua, Polina Shpilker, Nicola Segata, Harry Larman, and Biju Parekkadan. Long-adapter single-stranded oligonucleotide probes for the massively multiplexed cloning of kilobase genome regions. **Nature Biomedical Engineering**, 1, 2017.
- [183] Duy Tin Truong, Adrian Tett, Edoardo Pasolli, Curtis Huttenhower, and Nicola Segata. [Microbial strain-level population structure and genetic diversity from metagenomes](#). **Genome Research**, 27:626–638, 2017. [I.F. 11.28].
- [184] Sander Wuyts, Stijn Wittouck, Ilke De Boeck, Camille Allonsius, Pasolli Edoardo, Nicola Segata, and Sarah Lebeer. [Large-scale phylogenomics of the Lactobacillus casei group highlights taxonomic inconsistencies and reveals novel clade-associated features](#). **mSystems**, 2, 2017.
- [185] Moreno Zolfo, Adrian Tett, Olivier Jousson, Claudio Donati, and Nicola Segata. [MetaMLST: multi-locus strain-level bacterial typing from metagenomic samples](#). **Nucleic Acid Research**, 45:e7, 2017. [I.F. 10.16].
- [186] Claudio Donati, Moreno Zolfo, Davide Albanese, Duy Tin Truong, Francesco Asnicar, Valerio Iebba, Duccio Cavalieri, Olivier Jousson, Carlotta De Filippo, Curtis Huttenhower, and Nicola Segata. [Uncovering oral Neisseria tropism and persistence using metagenomic sequencing](#). **Nature Microbiology**, 2016. [I.F. 14.17].
- [187] The MetaSUB International Consortium (including Nicola Segata). The metagenomics and metadesign of the subways and urban biomes (metasub) international consortium inaugural meeting report. **Microbiome**, 4, 2016.
- [188] Edoardo Pasolli, Tin Truong, Faizan Malik, Levi Waldron, and Nicola Segata. [Machine learning meta-analysis of large metagenomic datasets : tools and biological insights](#). **PLoS Computational Biology**, 12:e1004977, 2016. [I.F. 4.62].
- [189] Matthias Scholz*, Doyle Ward*, Thomas Tolio, Moreno Zolfo, Francesco Asnicar, Duy Tin Truong, Edoardo Pasolli, Adrian Tett, Ardythe Morrow, and Nicola Segata. [Strain-level microbial epidemiology and population genomics from shotgun metagenomics](#). **Nature Methods**, 13:435–438, 2016. [I.F. 32.1].
- [190] Nicola Segata, Francesco Baldini, Julien Pompon, Wendy S Garrett, Duy Tin Truong, Rock K Dabiré, Abdoulaye Diabaté, Elena A Levashina, and Flaminia Catteruccia. [The reproductive tracts of two malaria vectors are populated by a core microbiome and by gender- and swarm-enriched microbial biomarkers](#). **Scientific Reports**, 6:1–10, 2016. [I.F. 5.6].
- [191] Doyle Ward, Matthias Scholz, Moreno Zolfo, Diana H Taft, Kurt R Schibler, Adrian Tett, Nicola Segata*, and Ardythe L Morrow*. [Metagenomic sequencing with strain-level resolution implicates uropathogenic E. coli in necrotizing enterocolitis and death in preterm infants](#). **Cell Reports**, 14:1–13, 2016. [I.F. 8.4].
- [192] Francesco Asnicar, George Weingart, Timothy L. Tickle, Curtis Huttenhower, and Nicola Segata. [Compact graphical representation of phylogenetic data and metadata with GraPhlAn](#). **PeerJ**, 3:e1029, 2015.
- [193] Ana R. Fusco da Costa, Tarcisio Fedrizzi, Maria L Lopes, Monica Pecorari, Wana L Oliveira da Costa, Elisabetta Giacobazzi, Jeann R da Costa Bahia, Veronica De Sanctis, Karla V Batista Lima, Roberto Bertorelli, Antonella Grottola, Anna Fabio, Pamela Ferretti, Francesca Di Leva, Giulia Fregni Serpini, Sara Tagliazucchi, Fabio Rumpianesi, Olivier Jousson, Nicola Segata, and Enrico Tortoli. [Characterization of 17 strains belonging to the Mycobacterium simiae complex and description of Mycobacterium paraense sp. nov.](#) **International Journal of Systematic and Evolutionary Microbiology**, 2015.

- [194] James Kaminski, Molly K Gibson, Eric A Franzosa, Nicola Segata, Gautam Dantas, and Curtis Huttenhower. [High-specificity targeted functional profiling in microbial communities with ShortBRED](#). **PLoS computational biology**, 11:e1004557, 2015. [I.F. 4.62].
- [195] Christian Milani, Gabriele Andrea Lugli, Sabrina Duranti, Francesca Turrone, Leonardo Mancabelli, Chiara Ferrario, Marta Mangifesta, Arancha González, Alice Viappiani, Matthias Scholz, Stefania Arioli, Borja Sanchez, Jonathan Lane, Doyle V Ward, Rita Hickey, Diego Mora, Nicola Segata, Abelardo Margolles, Douwe Van Sinderen, and Marco Ventura. [Bifidobacteria exhibit social behavior through carbohydrate resource sharing in the gut](#). **Scientific Reports**, 5, 2015.
- [196] Christian Milani, Leonardo Mancabelli, Gabriele Andrea Lugli, Sabrina Duranti, Francesca Turrone, Chiara Ferrario, Marta Mangifesta, Alice Viappiani, Pamela Ferretti, Valentina Gorfer, Adrian Tett, Nicola Segata, Sinderen van Douwe, and Marco Ventura. [Exploring vertical transmission of bifidobacteria from mother to child](#). **Applied and environmental microbiology**, 81:02037–15, 2015. [I.F. 3.67].
- [197] Nicola Segata. [Gut Microbiome: Westernization and the Disappearance of Intestinal Diversity](#). **Current Biology**, 25:R611–R613, 2015. [I.F. 9.57].
- [198] Duy Tin Truong, Eric Franzosa, Timothy Tickle, Matthias Scholz, George Weingart, Edoardo Pasolli, Adrian Tett, Curtis Huttenhower, and Nicola Segata. [MetaPhlan2 for enhanced metagenomic taxonomic profiling](#). **Nature Methods**, 12:902–903, 2015. [I.F. 32.07].
- [199] Kieran Tuohy, Francesca Fava, and Nicola Segata. *Studying the microbiota and microbial ecology of the GI tract in the Omics Era: Tools for stools.*, page 560. 2015.
- [200] Francesco Baldini*, Nicola Segata*, Julien Pompon*, Roch Dabiré, Abdoulaye Diabaté, Elena Levashina, and Flaminia Catteruccia. [Evidence of natural Wolbachia infections in field populations of Anopheles gambiae](#). **Nature Communications**, 5, 2014. [I.F. 10.74].
- [201] Erik Dassi, Annalisa Ballarini, Giuseppina Covello, HTM CMB2013, Alessandro Quattrone, Olivier Jousson, Veronica De Sanctis, Roberto Bertorelli, Michela A Denti, and Nicola Segata. [Enhanced microbial diversity in the saliva microbiome induced by short-term probiotic intake revealed by 16S rRNA sequencing on the IonTorrent PGM platform](#). **Journal of Biotechnology**, 190:30 – 39, 2014. [I.F. 3.18].
- [202] Eric A Franzosa, Xochitl C Morgan, Nicola Segata, Levi Waldron, Joshua Reyes, Ashlee M Earl, Georgia Giannoukos, Matthew Boylan, Dawn M Ciulla, Dirk Gevers, Jacques Izard, Wendy S Garrett, Andrew T Chan, and Curtis Huttenhower. [Relating the metatranscriptome and metagenome of the human gut](#). **Proceedings of the National Academy of Sciences of the United States of America**, 111, 2014. [I.F. 9.81].
- [203] Katherine Huang, Arthur Brady, Anup Mahurkar, Owen White, Dirk Gevers, Curtis Huttenhower, and Nicola Segata. [MetaRef: a pan-genomic database for comparative and community microbial genomics](#). **Nucleic Acid Research**, 42:D617–D624, 2014. [I.F. 8.80].
- [204] Christian Milani, Gabriele Lugli, Francesca Turrone, Leonardo Mancabelli, Sabrina Duranti, Alice Viappiani, Marta Mangifesta, Nicola Segata, Douwe van Sinderen, and Marco Ventura. [Evaluation of bifidobacterial community composition in the human gut by means of an ITS-metagenomics protocol](#). **FEMS Microbiology Ecology**, 90, 2014. [I.F. 3.88].
- [205] Michelle G Rooks, Patrick Veiga, LH Wardwell-Scott, Timothy L Tickle, Nicola Segata, Carey A Gallini, Chloé Beal, Monia Michaud, Johan ET Van Hylckama-Vlieg, Sonia A Ballal, Xochitl C Morgan, Jonathan N Glickman, Dirk Gevers, Curtis Huttenhower, and Wendy S Garrett. [Gut microbiome composition and function in experimental colitis during active disease and treatment-induced remission](#). **The ISME journal**, pages 1–15, 2014. [I.F. 8.95].
- [206] Matthias Scholz, Adrian Tett, and Nicola Segata. *Computational tools for taxonomic microbiome profiling of shotgun metagenomes*, page 188. 2014.
- [207] Annalisa Ballarini*, Nicola Segata*, Curtis Huttenhower, and Olivier Jousson. [Simultaneous quantification of multiple bacteria by the BactoChip microarray designed to target species-specific marker genes](#). **Plos One**, 8:e55763, 2013. [I.F. 4.09].
- [208] Omry Koren, Dan Knights, Antonio Gonzales, Levi Waldron, Nicola Segata, Rob Knight, Curtis Huttenhower, and Ruth E. Ley. [A Guide to Enterotypes across the Human Body: Meta- Analysis of Microbial Community Structures in Human Microbiome Datasets](#). **PLoS computational biology**, 9:e1002863, 2013. [I.F. 5.22].

- [209] Xothitl Morgan, [Nicola Segata](#), and Curtis Huttenhower. [Biodiversity and Functional Genomics in the Human Microbiome](#). **Trends in Genetics**, 20:51–58, 2013. [I.F. 9.77].
- [210] Jose U Scher, Andrew Sczesnak, Randy S Longman, [Nicola Segata](#), Carles Ubeda, Craig Bielski, Eric G Pamer, Steven Abramson, Curtis Huttenhower, and Dan Littman. [Expansion of intestinal Prevotella copri correlates with enhanced susceptibility to arthritis](#). **eLIFE**, 2:e01202, 2013. [I.F. 8,52].
- [211] [Nicola Segata](#), Annalisa Ballarini, and Olivier Jousson. [Genome sequence of Pseudomonas aeruginosa PA45, a highly virulent strain isolated from a patient with bloodstream infection](#). **Genome Announcements**, 1, 2013.
- [212] [Nicola Segata](#), Daniela Boernigen, Timothy L Tickle, Xochitl Morgan, Wendy S Garrett, and Curtis Huttenhower. [Computational meta'omics for microbial community studies](#). **Molecular Systems Biology**, 9:1–15, 2013. [Recommended as being of special significance in its field by Jack Gilbert from the F1000 Faculty I.F. 11.34].
- [213] [Nicola Segata](#), Daniela Börnigen, Xothitl Morgan, and Curtis Huttenhower. [PhyloPhlAn is a new method for improved phylogenetic and taxonomic placement of microbes](#). **Nature Communications**, 4:2304, 2013. [I.F. 10.01].
- [214] Timothy L. Tickle, [Nicola Segata](#), Levi Waldron, and Curtis Huttenhower. [Two-stage microbial community experimental design](#). **The ISME Journal**, pages 1–10, 2013. [I.F. 8.95].
- [215] Kjersti Aagaard, Kevin Riehle, Jun Ma, [Nicola Segata](#), Toni-Ann Mistretta, Cristian Coarfa, Sabeen Raza, Sean Rosenbaum, Ignatia Van Den Veyver, Aleksandar Milosavljevic, Dirk Gevers, Curtis Huttenhower, Joseph Petrosino, and James Versalovic. [A Metagenomic Approach To Characterization Of The Vaginal Microbiome Signature In Pregnancy](#). **PLoS ONE**, 7:e36466, 2012. [I.F. 4.09].
- [216] Sahar Abubucker, [Nicola Segata](#), Johannes Goll, Alyxandria Schubert, Jacques Izard, Brandi L. Cantarel, Beltran Rodriguez-Mueller, Jeremy Zucker, Mathangi Thiagarajan, Bernard Henrissat, Owen White, Scott T Kelley, Barbara Methe, Patrick D Schloss, Dirk Gevers, Makedonka Mitreva, and Curtis Huttenhower. [Metabolic Reconstruction for Metagenomic Data and Its Application to the Human Microbiome](#). **PLoS Computational Biology**, 8:e1002358, 2012. [I.F. 5.22].
- [217] Sarah Jane Delany, [Nicola Segata](#), and Brian Mac Namee. [Profiling Instances in Noise Reduction. Knowledge-Based Systems](#), 31:28–40, 2012. [I.F. 2.42].
- [218] Karoline Faust*, Fah J Sathirapongsasuti*, Jacques Izard, [Nicola Segata](#), Dirk Gevers, Jeroen Raes*, and Curtis Huttenhower*. [Microbial co-occurrence relationships in the human microbiome](#). **PLoS Computational Biology**, 8:e1002606, 2012. [I.F. 5.22].
- [219] Janjua Hussnain, [Nicola Segata](#), Paola Bernabò, Sabrina Tamburini, Albert Ellen, and Olivier Jousson. [Clinical populations of Pseudomonas aeruginosa isolated from acute infections show a high virulence range partially correlated with population structure and virulence gene expression](#). **Microbiology**, 158:2089–2098, 2012. [I.F. 3.06].
- [220] The Human Microbiome Consortium (including [Nicola Segata](#)). [A Framework for Human Microbiome Research](#). **Nature**, 486:215–221, 2012. [I.F. 36.28].
- [221] The Human Microbiome Consortium (including [Nicola Segata](#)). [Structure, function and diversity of the healthy human microbiome](#). **Nature**, 486:207–214, 2012. [I.F. 36.28].
- [222] [Nicola Segata](#), Susan Kinder Haake, Peter Mannon, Katherine P Lemon, Levi Waldron, Dirk Gevers, Curtis Huttenhower, and Jacques Izard. [Composition of the Adult Digestive Tract Microbiome Based on Seven Mouth Surfaces, Tonsils, Throat and Stool Samples](#). **Genome Biology**, 13:R42, 2012. [article flagged as Highly Accessed, I.F. 6.89].
- [223] [Nicola Segata](#)*, Edoardo Pasolli*, Farid Melgani, and Enrico Blanzieri. [Local SVM Approaches for Fast and Accurate Classification of Remote Sensing Images](#). **International Journal of Remote Sensing**, 33:6186–6201, 2012. [I.F. 1.12].
- [224] [Nicola Segata](#), Levi Waldron, Annalisa Ballarini, Vagheesh Narasimhan, Olivier Jousson, and Curtis Huttenhower. [Metagenomic microbial community profiling using unique clade-specific marker genes](#). **Nature Methods**, 9:811–814, 2012. [I.F. 19.27].
- [225] Levi Waldron, Shuji Ogino, Yujin Hoshida, Kaori Shima, Amy McCart Reed, Peter Simpson, Yoshifumi Baba, Katsuhiko Noshio, [Nicola Segata](#), Gregory J. Kirkner, Edward Giovannucci, John Quackenbus,

- Georgia Chenevix-Trench, Todd R. Golub, Charles S. Fuchs, Giovanni Parmigiani, and Curtis Huttenhower. [Expression profiling of archival tissues for long-term health studies](#). **Clinical Cancer Research**, 18:6136–46, 2012. [I.F. 7.74].
- [226] Sonia A Ballal, Carey Ann Gallini, [Nicola Segata](#), Curtis Huttenhower, and Wendy S Garrett. [Host and gut microbiota symbiotic factors: lessons from inflammatory bowel disease and successful symbionts](#). **Cellular microbiology**, 13:508–517, 2011. [I.F. 5.63].
- [227] Andrew Sczesnak, [Nicola Segata](#), Xiang Qin, Dirk Gevers, Joseph F Petrosino, Curtis Huttenhower, Dan Littman, and Ivaylo Ivanov. [The genome of Th17 cell-inducing segmented filamentous bacteria reveals extensive auxotrophy and adaptations to the intestinal environment](#). **Cell Host & Microbe**, 10:260–272, 2011. [I.F. 13.73].
- [228] [Nicola Segata](#) and Enrico Blanzieri. [Operators for transforming kernels into quasi-local kernels that improve SVM accuracy](#). **Journal of Intelligent Information Systems**, 37:155–186, 2011. [I.F. 1.08].
- [229] [Nicola Segata](#) and Curtis Huttenhower. [Toward an efficient method of identifying core genes for evolutionary and functional microbial phylogenies](#). **PLoS ONE**, 6:e24704, 2011. [I.F. 4.41].
- [230] [Nicola Segata](#), Jacques Izard, Levi Waldron, Dirk Gevers, Larisa Miropolsky, Wendy S Garrett, and Curtis Huttenhower. [Metagenomic Biomarker Discovery and Explanation](#). **Genome Biology**, 12:R60, 2011. [article flagged as Highly Accessed and selected for journal cover, I.F. 6.89].
- [231] Mikalai Krapivin, Aliaksandr Autayeu, Maurizio Marchese, Enrico Blanzieri, and [Nicola Segata](#). Keyphrases extraction from scientific documents: Improving machine learning approaches with natural language processing. In G Chowdhury, C Khoo, and J Hunter, editors, *The Role of Digital Libraries in a Time of Global Change*, pages 102–111. Springer, 2010.
- [232] [Nicola Segata](#) and Enrico Blanzieri. [Fast and Scalable Local Kernel Machines](#). **Journal of Machine Learning Research**, 11:1883–1926, 2010. [I.F. 3.12].
- [233] [Nicola Segata](#), Enrico Blanzieri, Sarah Jane Delany, and Pádraig Cunningham. [Noise Reduction for Instance-Based Learning with a Local Maximal Margin Approach](#). **Journal of Intelligent Information Systems**, 35:301–331, 2010. [I.F. 1.08].
- [234] [Nicola Segata](#) and Enrico Blanzieri. [Stochastic TT-Calculus Modelling of Multisite Phosphorylation Based Signaling: The PHO Pathway in Saccharomyces Cerevisiae](#). **Transactions on Computational Systems Biology**, X:163–196, 2008.
- [235] [Nicola Segata](#), Enrico Blanzieri, and Corrado Priami. [Towards the integration of computational systems biology and high-throughput data: supporting differential analysis of microarray gene expression data](#). **Journal of Integrative Bioinformatics**, 5, 2008.