

## **Author Biography**



**Barend Mons** is Professor of BioSemantics at the Human Genetics Department of Leiden University Medical Center and founder of the BioSemantics group. He was elected CODATA President in 2018. Next to his leading role in the research of the group, Barend plays a leading role in the international development of "data stewardship" for biomedical data. For instance, he was head-of-node of ELIXIR-NL at the Dutch Techcentre for Life Sciences (until 2015), is Integrator Life Sciences at the Netherlands eScience Center, and board member of the Leiden Center of Data Science. In 2014, Barend initiated the FAIR data initiative and in 2015, he was appointed Chair of the European Commission's High Level Expert Group for the "European Open Science Cloud", from which he retired by the end of 2016. Presently, Barend is co-leading the GO FAIR initiative, an initiative to kick start dvelopments towards the Internet of FAIR data and services, which will also contribute to the implementation of components of the European Open Science Cloud. The focus of the contribution of the BioSemantics group is on developing an interoperability backbone for biomedical applications in general and rare disease in particular.



**Erik Schultes** is International Science Coordinator at the GO FAIR International Support and Coordination Office where he has been working with a diverse community of stakeholders to develop FAIR data and services. Erik is also a member of the Leiden Center for Data Science at Leiden University. Erik is an evolutionary biologist with long standing interests in data-intensive research. In addition to private consulting, he has held previous academic appointments at the University of California, Los Angeles, The Whitehead Institute for Biomedical Research at the Massachusetts Institute of Technology, Duke University, and The Santa Fe Institute. ORCID: 0000-0001-8888-635X



**Fenghong Liu** an Associate Professor at the National Science Library, Chinese Academy of Sciences (NSLC) and School of Economics and Management, University of Chinese Academy of Sciences. She received PhD degree at the Institute of Botany, CAS (IBCAS) in 2006. Before joining in NSLC in 2015, she had been the head of the library of IBCAS for four years. She is currently the Managing Editor of Data Intelligence (DI) Journal. Her research interests focus on data journals, especially whether and how data journals foster and promote data sharing awareness and culture across communities.

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Annika Jacobsen is a postdoctoral researcher at the BioSemantics group, Human Genetics Department, Leiden University Medical Center, The Netherlands. She obtained her Bachelor and Master degrees at the Technical University of Denmark in 2009 and 2012, and her PhD degree at the Vrije Universiteit Amsterdam in 2019. Her research interests are to create interoperable FAIR rare disease data with the aim to learn more about cause, diagnosis and treatment. ORCID: 0000-0003-4818-2360



**Ricardo de Miranda Azevedo** is an independent and pragmatic researcher with a background in psychology and clinical epidemiology who is happy to work in multidisciplinary settings. He is a great multilingual communicator who is enthusiastic about scientific research but also for computers and teaching different topics. He is often labeled as a creative mind with a problemsolver attitude.

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**Nick Juty** is a Senior Research Technical Manager in the eScience Lab, based in the Department of Computer Science at The University of Manchester. He is involved in numerous EU projects relating to aspects of FAIR and interoperability, particularly with respect to identifier systems and metadata. Nick previously worked at EMBL-EBI where he helped create the identifiers.org identifier resolution system. Nick holds a PhD in Biochemistry from the University of Southampton. ORCID: 0000-0002-2036-8350



**Dominique Batista** is a young developer specialized in creating tools and software for scientific researchers and academics. His current activities focus on delivering clean, tested and documented open-source code to help structuring metadata over the Web. Dominique's side activities focus on producing knowledge and scientific papers as well as representing the team in international conferences. He is passionate about computer (hardware, Web), science (biology and physics), video games and much more.

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**Simon J. Coles** is Professor of Structural Chemistry at the University of Southampton and Director of the UK National Crystallography Service. He has promoted open approaches to research and education in Chemistry for many years and is now also Director of the UK Physical Sciences Datascience Service.

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**Ronald Cornet** holds a position as associate professor at the department of Medical Informatics in the Amsterdam Public Health Research Institute, Amsterdam UMC. His research focuses on semantic interoperability, both from a technical perspective and from a user's point of view, including natural language processing. Ronald is involved in health care information standardization, among others as member of the Dutch, European (CEN) and global (ISO) standardization committees on health informatics. He is also involved in SNOMED International, which is responsible for maintenance and further development of SNOMED CT. He chairs the IMIA working group on Language and Meaning in Biomedicine, and participates in various international projects including FAIR4Health and European Joint Programme Rare Diseases (EJP-RD). ORCID: 0000-0002-1704-5980



**Mélanie Courtot** is a Metadata Standards coordinator at EMBL-EBI, where her team designs tools to streamline multi-omics submissions and develops integrated metadata strategies across the institute's archival resources and other projects such as FAIRPlus and CINECA, focusing on semantic enrichment and harmonization for pharmaceutical and cohort data, respectively. In the context of GA4GH which she joined in 2016, Mélanie co-leads groups working on data access and encoding as well as clinical and phenotypic standards. ORCID: 0000-0002-9551-6370



**Mercè Crosas** is Harvard University's Research Data Officer, with Harvard University Information Technology (HUIT), and Chief Data Science and Technology Officer at Harvard's Institute for Quantitative Social Science (IQSS). In her role at HUIT, Dr. Crosas provides leadership to mature Harvard's data management and governance practices. She works in close collaboration with key constituencies in Research, Information Technology, and the Library to coordinate support for the data lifecycle and guide university policy, process, and procedures for research data. Dr. Crosas brings to this role a wealth of experience in data management architecture and international community data standards as well as the vision to make data more accessible for research while preserving privacy.

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**Michel Dumontier** is the Distinguished Professor of Data Science at Maastricht University and co-founder of the FAIR (Findable, Accessible, Interoperable and Reusable) data principles. His research focuses on the development of computational methods for scalable and responsible discovery science. Previously at Stanford University, Dr. Dumontier now leads the interfaculty Institute of Data Science at Maastricht University to develop socio-technological systems for accelerating scientific discovery, improving human health and well-being, and empowering communities with ethical data-driven decision making. ORCID: 0000-0003-4727-9435



**Carole Goble** is Professor of Computer Science at The University of Manchester. Over the past 25 years Carole has pursued research interests in the acceleration of FAIR scientific innovation through: distributed computing, workflows and automation; knowledge management and the Semantic Web; social, virtual environments; software engineering for scientific software; and new models of scholarship for data-intensive science. Carole has served on numerous committees and currently serves in the G7 Open Science Working Group as the UK expert. In 2008 she was awarded the Microsoft Jim Gray e-Science award for contributions to e-Science and in 2010 was elected a Fellow of the Royal Academy of Engineering. In 2014 she was awarded the Commander of the Order of the British Empire for services to Science. ORCID: 0000-0003-1219-2137



**Giancarlo Guizzardi** is currently a professor of computer science and head of the Conceptual and Cognitive Modeling Research Group (CORE) at the Free University of Bozen-Bolzano, Italy. He has a PhD in Computer Science (with the highest distinction) from the University of Twente, The Netherlands. He has been working for more than two decades in the interplay between formal and applied ontology, cognitive science, philosophical logics, linguistics, and computer science (in particular, in the areas of conceptual modeling, enterprise modeling and knowledge representation). He has published *circa* 270 papers, many of which have received best paper awards in important conferences. He has also played a multitude of roles in key conferences in the field (e.g., general chair, program committee chair, and keynote speaker). Finally, he is an associate editor for the Applied Ontology journal, member of a number of international journal editorial boards, and of the Advisory Board of the International Association for Ontology and its Applications (IAOA).

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Ali Hasnain is a Lecturer and Researcher at Insight Centre for Data Analytics, National University of Ireland Galway (NUIG). Before joining DERI, Hasnain completed a master's degree in "Engineering and Management of Information Systems" from Royal Institute of Technology, KTH, Stockholm, Sweden. He received another master's degree from the same University in "Project Management and Operational Development". Career spans over five years of experience in Software industry and more than a decade in academia at various positions. It includes work experience as Lecturer, Senior Researcher, Project Manager and lead scientist. Teaching responsibilities at NUI Galway includes mentoring and co-supervising master's and PhD students. With strong scientific publishing record the list of selected Scientific Publications in the Field of Computing, Data Analytics, Software Engineering and Data Science positively reviewed and published at world renowned Journals and conferences can be seen at: https://goo.gl/eYNoas (around 650 citations). Ali Hasnain is the Program Committee Member of international conferences and workshops e.g, VOILA-ISWC and KESW. He remained involved in organizing workshops and tutorial at K-Cap 2015 and SWAT4LS 2015–2018 for international audiences. His current research interests include: FAIR DATA, Open Data, Big Data, Semantic Models, Data Cataloging/Linking, Visual Interfaces and Data Integration. ORCID: 0000-0003-4014-4394



**Kristina Hettne**, PhD, is a Digital Scholarship Librarian at the Centre for Digital Scholarship, Leiden University Libraries in Leiden, The Netherlands. At the Centre, she helps researchers navigate Open Science and shape the future of research data management. She is the Centre's liaison with GO FAIR and part of the FAIR Convergence Matrix development team for optimizing the reuse of existing FAIR-related resources. She obtained her PhD degree in bioinformatics of toxicogenomics from the University of Maastricht in 2012. She is a review editor for "Frontiers in Big Data", member of the Advisory Board of the Wiley journal *Genetics & Genomics Next*, and co-author of more than 30 research publications. ORCID: 0000-0002-4182-7560



Jaap Heringa is full professor of Bioinformatics and director of the Centre for Integrative Bioinformatics (IBIVU) at Vrije Universiteit of Amsterdam, The Netherlands. Heringa has been scientific co-director of the Netherlands Bioinformatics Centre (NBIC) from 2009–2013. He has served as deputy Head of Node of ELIXIR-NL from 2013–2016, and since April 2016 as its Head of Node. Since 2014 he has been director of the Netherlands Bioinformatics and Systems Biology Research School (BioSB) and as of January 2016 he has been scientific lead of the Dutch Techcentre for Life Sciences (DTL). Heringa has been executive editor of *Molecular Data Science* since 2018 and became head of the Department of Computer Science at Vrije Universiteit in that same year. His areas of research are Bioinformatics and Systems Biology, while current research interests revolve around formal modeling strategies, new sequence analysis strategies, protein structure and interaction prediction, cancer-related data integration, and semantic Web-based data stewardship and data-tools interoperability.

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**Rob Hooft** is Manager of the Dutch tasks in the European ELIXIR infrastructurefor life science data, at the Dutch Techcenter for Life Sciences (DTL). After working for many years in the industry, Rob moved back to the academic world and joined the Netherlands center for Bioinformatics, NBIC, as CTO for the service-directed program. Via a two-year excursion to the Netherlands eScience Center from where he ran the data program of DTL he is now working for DTL itself. Rob has been building up a body of knowledge on FAIR research data stewardship since early 2014. Rob also represents ELIXIR relations in the Research Data Alliance. ORCID: 0000-0001-6825-9439



**Melanie Imming** authored reports on FAIR Data and Data Stewardship practices in The Netherlands for SURF and the Dutch National Contact Point for Research Data Management, LCRDM. As a consultant with a strong international network in the area of Open Science, FAIR Data and Digital Cultural Heritage, Melanie is experienced in project management and engaging stakeholders from different domains, and a known advocate for Open Science practices. ORCID: 0000-0003-2376-9755



**Keith Jeffery** is an independent consultant working on EPOS, ENVRIPLUS and ENVRIFAIR as well as on advanced CLOUD computing and Virtual research Environments. He is past Director IT at STFC with 360,000 users, 1,100 servers and 140 staff. Keith holds three honorary visiting professorships, is a Fellow of the Geological Society and the British Computer Society, a Chartered Engineer & IT Professional and an Honorary Fellow of the Irish Computer Society. Keith is past-President of ERCIM and euroCRIS, and serves on international expert groups, conference boards and assessment panels. He had advised government on IT. He chaired the EC Expert Groups on GRIDs and on CLOUD Computing. ORCID: 0000-0003-4053-7825



**Rajaram Kaliyaperumal** was born in Pondicherry, India. He received a B.Tech degree in Biomedical Engineering from Pondicherry University, India in 2008 and an M.Sc degree in Biomedical Engineering from Linköping University, Sweden in 2011. In 2012 he joined the department of Computer and Information Science, Linköping University as a software engineer. During this time he developed methods and tools to align and repair ontologies. In 2013 he joined the Biosemantics group, Leiden, in the Netherlands as a software developer. His current research activities include investigating the use of semantic Web technology in the context of FAIR data and developing prototypes to demonstrate the use of FAIR data. ORCID: 0000-0002-1215-167X



**Martijn Kersloot** is a PhD candidate at the Department of Medical Informatics in the Amsterdam UMC in collaboration with Electronic Data Capture platform Castor EDC. He has a background in Medical Informatics and his research focuses on the creation of a scalable solution that will aid in the standardization of medical research data. ORCID: 0000-0003-3357-3027

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**Tobias Kuhn** is an assistant professor at the Computer Science department of the VU University Amsterdam. After receiving his PhD at the Institute of Computational Linguistics of the University of Zurich in 2010, he worked at the University of Malta, Yale University, and ETH Zurich. His research interests span fields including knowledge representation, controlled natural language, socio-technical systems, and scholarly communication. His recent work focuses on the approach of nanopublications, how cryptographic methods and provenance modelling can support trust and reliability, and how this can support the initiatives around the FAIR principles for data management. ORCID: 0000-0002-1267-0234



**Ignasi Labastida** is currently the work at the Head of the Research Unit at the University of Barcelona's Learning and Research Resources Centre (CRAI) where he also leads the Office for the Dissemination of Knowledge. He is currently chairing the Board of SPARC Europe and he is a member of the Steering Committee of the Info and Open Access Policy Group at the League of European Research Universities (LERU). He is the co-author of the LERU Roadmap for Research Data and the LERU Roadmap on Open Science. He has participated in several research projects including LEARN, a EU H2020 project focused on helping research performing institutions in managing their research data.

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**Barbara Magagna** holding a master degree in landscape planning and in geoinformatics, has 24 years of experience working in the field of GIS, landscape ecology modelling and database management for projects operating at different scales. Her interests and formation moved in the last years also towards ontology engineering and process facilitation, abilities she could already apply in several national and European semantic projects. She had been working for the University of Natural Resources and Applied Life Sciences, the University of Vienna and since December 2007 for the Federal Environment Agency (Umweltbundesamt GmbH) where she undertakes the function of a semantic analyst and database designer. She was involved in FP7 and H2020 projects as facilitator in the development process of terminologies like SERONTO and EnvThes. She has experience as work package lead related to data management, in the design of UML models and XML schemas in the air quality data reporting area, in the design of semantic models in projects related to Environmental Research Infrastructures (ENVRI). ORCID: 0000-0003-2195-3997



**Peter McQuilton** holds a 1st class BSc (Hons) degree in Genetics from the University of Leeds (2000) and a PhD (2004) in Drosophila neurodevelopment from the University of Cambridge. Peter has spent over 15 years working in the fields of bioinformatics, biocuration and data wrangling, first as a genetic literature curator at FlyBase, the premier database on drosophila genes and genomes, and then as part of the Data Readiness Group at the Oxford e-Research Centre. As part of the Data Readiness Group, Peter leads the FAIRsharing project. FAIRsharing is a manually curated, searchable portal of interlinked standards, databases and policies, from all domains. ORCID: 0000-0003-2687-1982



**Natalie Meyers** is an E-Research librarian at University of Notre Dame's Navari Family Center for Digital Scholarship where she helps pioneer and provide research data consulting services, including more in-depth data management services in support of grant-funded research. She serves as an ambassador and advisor to groups and individuals regarding data and digital content management. She provides advice & works with units across campus and externally to provide collaborative, team-based support for reproducible research, data management and software preservation needs, as well as data and metadata services for the Navari Center for Digital Scholarship.

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Annalisa Montesanti is the Program Manager at the Health Research Board (HRB). She is responsible for developing and managing a portfolio for health research careers in order to develop a coordinated approach to building capacity in health research in Ireland. She has developed a framework promoting the training, support and career development of academic researchers and health practitioners with the long-term goal of training individuals as collaborative researcher in order to generate ideas and undertake research, drive the integration of research and evidence into policy and practice, thus improving decision-making and, ultimately, health outcomes and creating a wider impact in society. Annalisa is also deeply involved in promoting open science, FAIR data and research data stewardship through several international collaborations. Annalisa had many years of experience in scientific research in in Italy, England and Ireland. She has a BSc from Palermo University in Italy and a PhD in cancer biology from the Institute of Molecular Medicine in Oxford, UK.

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**Mirjam van Reisen** is Professor International Relations, Innovation and Care at Tilburg University and Professor Computing for Society at Leiden Centre for Data Science, at the University of Leiden. Van Reisen is Research Leader of the Globalization, Accessibility, Innovation and Care (GAIC) network. Van Reisen is the Coordinator of the Go-FAIR Implementation Network Africa. Van Reisen is a member of the Dutch Advisory Council on International Affairs (AIV) and Chair of the Development Assistance Committee (COS). Van Reisen leads the oganisation EEPA in Brussels. She is a member of the Board of Philips Foundation and the SNV Netherlands Development Organisation. Van Reisen received the Golden Image Award in 2012 by President Ellen Johnson Sirleaf. ORCID: 0000-0003-0627-8014



**Philippe Rocca-Serra**, after an engineering degree from University of Rennes, received his PhD in Molecular Genetics from University of Bordeaux. He worked at EMBL-EBI in helping establish the European microarray archive. He has 10 years of practice in data management and has been an active member of several standardization efforts, aiming at promoting open data and open science vision. He is technical coordinator of the ISA project, part of the OBO Foundry editorial board and participates in resource development as part of the OBI project. ORCID: 0000-0001-9853-5668



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Luiz Olavo Bonino da Silva Santos is the International Technology Coordinator of the GO FAIR International Support and Coordination Office, and Associate Professor of the BioSemantics group at the Leiden University Medical Centre in Leiden, The Netherlands. His background is in ontologydriven conceptual modelling, semantic interoperability, service-oriented computing, requirements engineering and context-aware computing. In the last five years Luiz has been involved in a number of activities to realize the FAIR principles, including the development of a number of technologies and tools to support making, publishing, indexing, searching and annotating FAIR (meta)data. ORCID: 0000-0002-1164-1351



In a 20-year career specializing in metadata, ontologies and discovery, **Juliane Schneider** has worked in start-ups, on Wall Street in an insurance library, at New York University medical center, for EBSCO publishing, and at The University California, San Diego in the Research Data Curation Program. Her longest stint at any job was the six years she spent at Countway Library as the Metadata Librarian, and now she has returned to Harvard as the Team Lead/Lead Data Curator for Harvard Catalyst.

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**George O. Strawn** is currently the director of the Board on Research Data and Information at the National Academies of Sciences, Engineering, and Medicine where he focuses on Open Science and FAIR data. Prior to joining the Academies, Dr. Strawn was the director of the National Coordination Office (NCO) for the Networking and Information Technology Research and Development (NITRD) Program and co-chair of the NITRD interagency committee. ORCID: 0000-0003-4098-0464



**Mark Thompson** is a senior research scientist in the Biosemantics group at the Human Genetics department of Leiden University Medical Centre. He obtained a PhD in Computer Science from the University of Amsterdam in 2012. He has expertise in hardware and software architecture (co-) design, data management, data modeling, FAIR data infrastructure and computational aspects of knowledge discovery.

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**Tobias Weigel** is working at the German Climate Computing Center (DKRZ) in the area of e-infrastructures. Tobias has worked extensively on Digital Object and Persistent Identifier services in multiple contexts, including community cyberinfrastructures (ESGF, ENVRI) and cross-disciplinary infrastructures (EUDAT, EOSC). He has co-chaired multiple working groups of the Research Data Alliance (RDA) to convene on technical recommendations in the area of identifiers, metadata and related e-infrastructures services. Tobias is editorial board member of the CODATA Data Science Journal and member of the RDA Technical Advisory Board. Tobias holds a PhD from University of Hamburg in computer science. ORCID: 0000-0002-4040-0215



**Mark D. Wilkinson** is Fundacion BBVA Chair in Biotechnology and Isaac Peral Distinguished Researcher at the Center for Plant Biotechnology and Genomics, Technical University of Madrid. For the past 15 years, his laboratory has focused on designing biomedical data/tool representation, discovery, and automated reuse infrastructures - what would now be called "FAIR". He is lead author of the primary FAIR Data Principles paper, and lead author on the first paper describing a reference implementation of those principles over legacy data. He is a founding member of the FAIR Metrics Authorship Group, tasked with defining the precise, measurable behaviors that FAIR resources should exhibit. Beyond FAIR, his laboratory also studies the application of Artificial Intelligence techniques to the problem of microbiome engineering. ORCID: 0000-0001-6960-357X



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**Peter Wittenburg** was Executive Director of Research Data Alliance (RDA) Europe, Member of RDA Technical Advisory Board, and Scientific Coordinator of European Data Infrastructure (EUDAT). He set up and led the Technical Group with about 30 experts at Max Planck Institute (MPI) for Psycholinguistics and then led the Language Archiving Group with about 25 experts. Since 2000 he has played leading roles in a variety of European (funded by the European Commission) and national projects (funded by MPS, DFG, BMBF, NWO 23) and ISO initiatives (ISO TC37/SC4). He won the Heinz Billing Award of the MPS for the advancement of scientific computation in 2011 and received an honorary doctorate from University Tübingen in 2013. ORCID: 0000-0003-3538-0106



**Marco Roos** is assistant professor and group leader of the Biosemantics group of the Leiden University Medical Centre (Human Genetics Department). The group is known for co-founding and advocating the FAIR data principles. His research focus is on making state-of-the-art computer science applicable to enhance biomedical research (e-Science), particularly the application of computational knowledge discovery and linked data techniques to address translational research challenges of rare human diseases. At an international level, Marco is focused on the implementation of FAIR principles to create a powerful substrate and worldwide robust infrastructure for knowledge discovery across distributed rare disease data resources. ORCID: 0000-0002-8691-772X



**Sarala Wimalaratne** spent the last 10 years at the European Bioinformatics Institute (EMBL-EBI) working with multiple data integration and infrastructure projects. During her time at the EMBL-EBI, she led the Identifiers.org resource, which provides stable identifier resolution for life science data and beyond. She was also involved in the Data Commons Pilot Phase Consortium on globally unique identifiers (GUIDs), the Elixir Interoperability Platform on BioSchemas and Identifiers, the FORCE11 Data Citation Implementation Pilot on Identifiers and the EU FREYA Project on identifier services. From September 2019, she will be joining DataCite as Head of Infrastructure Services. ORCID: 0000-0002-5355-2576



Stian Soiland-Reyes is a Technical Architect in the eScience Lab, based in the Department of Computer Science at The University of Manchester. Since 2006 he has worked as a software engineer and researcher focusing on reproducibility, scientific workflows, interoperability, linked data, metadata and open science. He is a persistent advocate of Open Scholarly Communication, and is on the leadership team of the Common Workflow Language and on the Project Management Committee of several open source projects at the Apache Software Foundation. He co-created the Research Object model, contributed to the W3C provenance model PROV-O and multiple Linked Data initiatives. He is co-chair of the Research Object Crate team. ORCID: 0000-0001-9842-9718



**John Kunze** is an Identifier Systems Architect at the California Digital Library. With a background in computer science and mathematics, he wrote BSD Unix software that comes pre-installed with Mac and Linux systems. He created the ARK identifier scheme, the N2T.net scheme-agnostic resolver, and contributed heavily to Internet standards for URLs (RFC1736, RFC1625, RFC2056), archiving (Baglt - RFC8493), Web archiving (WARC), and Dublin Core metadata (RFC2413, RFC2731).

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**Ulrich Schwardmann** is deputy leader of the eScience working group of the GWDG, a joint compute and IT competence center of the university and the Max Planck Society, and leads there the data management activities of GWDG. He has a doctoral degree in mathematics and has a long lasting background in scientific computing. Ulrich Schwardmann is working with persistent identifiers as enabling technology for research data management since almost ten years. He is speaker of the management board of ePIC, the Persistent Identifier Consortium for eResearch, and is DONA-MPA System Administrator for GWDG. His current research interests include Digital Object Interface Protocol, PID Information Types and Data Type Registration, PID profiles and policies.

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**Jens Klump** leads the Geoscience Analytics Team in the Mineral Resources Unit of the Commonwealth Scientific and Industrial Research Organization (CSIRO). Jens' work focuses on data in minerals exploration, investigating the digital value chain from data capture to data analysis and decision making. This value chain includes automated data and metadata capture, sensor data integration, both in the field and in the laboratory, data processing workflows, and data analysis by statistical methods, machine learning and numerical modelling. Jens obtained degrees in geology and oceanography from the University of Cape Town, South Africa, and received his PhD in marine geology from the University of Bremen, Germany. ORCID: 0000-0001-5911-6022



**Sofiane Bendoukha** is a computer scientist at the German Climate Computing Center (DKRZ) within the data management group. For years, Sofiane has been working on scientific workflow management systems, service orchestration and workflow modeling. After joining DKRZ, he focused more on the development of software tools for the climate community related to the management of persistent identifiers and Handle servers in the EUDAT project. Currently, Sofiane is a deputy leader in the EOSC-HUB project. He is responsible of designing, implementing and deploying reliable and user-friendly compute services to scientists related to the climate domain. Sofiane holds a PhD in computer science from the University of Hamburg, Germany. ORCID: 0000-0002-8959-2027



**Rob Quick** is the Associate Director of the Science Gateways Research Center with the Pervasive Technology Institute at Indiana University. Rob has been working with interoperability of international cyberinfrastructure for more than 15 years. This includes holding the position of Chief Operations Officer for the Open Science Grid and managing the XSEDE Science Gateways Support Services. In recent years he has turned his focus from interoperability of research computing infrastructure to data interoperability. This includes NSF funding (NSF #1659310 and #1839013) to create and operate the Robust Persistent Identification of Data (RPID) testbed which provides a set of testbed services to allow researcher to implement the FAIR principles within the Digital Object Architecture. Rob holds a degree in Physics from Purdue University. ORCID: 0000-0002-0994-728X



**Annalisa Landi**, PharmD, II level post-graduate Master in Regulatory Sciences "G.Benzi" at University of Pavia, Researcher at Fondazione per la Ricerca Farmacologica Gianni Benzi Onlus. She is involved in scientific and regulatory activities, in particular related to data protection and confidentiality, plan and management of patient registries and medicine databases management. ENCePP WG3 member.

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Viviana Giannuzzi, PharmD, PhD in pharmacology, post-graduate master in Clinical Research of Medicines, Senior Researcher at Fondazione per la Ricerca Farmacologica Gianni Benzi Onlus and Head of the Research Department. Her main areas of expertise are: ethics and regulatory, nonclinical and clinical research, clinical studies application, pharmacology, orphan medicines and paediatric research. She is patient representative at Paediatric Committee, European Medicine Agency (EMA), and member of WP4 Ethics Working Group of EnprEMA. ORCID: 0000-0002-2534-6783



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**Christopher Brewster** is a Senior Scientist in the Data Science group at TNO, and Professor of Emerging Technologies at the Institute for Data Science, Maastricht University, The Netherlands. His PhD was in ontology learning from text from the University of Sheffield. His main research interests are the application of semantic technologies and more generally artificial intelligence (AI) to supply chains and the agri-food sector, and the ethical and social implications of the widespread use of data science and AI.

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**Bert Meerman** is the Director of the GO FAIR Foudation (GFF). GFF supports the International GO FAIR Office, mainly in the area of paving the wave for implementing a coherent certification program. Bert is a senior business executive with a successful track record in Finance, Network, Information and Data technology. Bert has worked in a variety of management roles in different countries, mostly for American software companies. In addition, Bert has been the Secretary General of the International Factors Group, a consortium of finance companies where he implemented a successful worldwide data-exchange platform, based upon agreed network protocols and EDIFACT standards. Bert is a business economist, with an MBA from the Erasmus University in Rotterdam.

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**Derk Arts** has over 12 years of experience in medicine, research and data management, and has been involved in several projects integrating complex and diverse data sources. He received his MD from Vrije University in 2011 and his PhD on decision support and machine learning from the University of Amsterdam in 2016. During his MD training, Dr. Arts identified a major problem in medical research. Due to the unavailability of affordable, user-friendly data capture tools, researchers were deviating to non-compliant alternatives that reduce data quality, security, and reusability, and greatly increase waste. To solve these core issues, he founded Castor, a research platform that enables researchers to easily capture, standardize and reuse medical research data. The platform is currently serving thousands of clinical studies, both commercial and academic, and has been integrated with EPIC and other EMR systems, using HL7 FHIR. Castor is capable of generating machine readable data, which is one of the most promising capabilities for eClinical systems.

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