May 19-20, 2022

Virtual

By invitation only

PRISME Forum
Spring 2022
Technical Meeting

Building a Connected
Pharma Data Ecosystem

PRISME Forum Spring 2022 Technical Meeting

Online - DAY 1 - Thursday May 19, 2022

Presentations are forward-looking and strategic covering People, Process, Technology and Data

US ET	Topic	Moderator/Presenter
09:30	Welcome & Introduction	Sonia Banerjee, <i>Gilead</i> – TMAC Chair
09:35	From Application-centric to Data-centric Architectures	Hassan Abba, <i>AZ</i> Ray Reichard, <i>BMS</i>
10:05	Data to Decision	Emily Gorcenski, <i>Thoughtworks</i>
10:30	Regeneron Data Platform – an Enterprise Data Platform to Harmonize the Data Processing and Data Sharing across Regeneron Business Units	Quan Yang, <i>Regeneron</i>
10:45	Data Mesh Implementation Notes and Learnings from a Related Industry: Value-based Health Insurance	Steve Prewitt, Sumitovant Biopharma
11:00	Panel Discussion	Facilitated by Sonia Banerjee, <i>Gilead</i> with panelists: Hassan Abba, <i>AZ</i> Ray Reichard, <i>BMS</i> Emily Gorcenski, <i>Thoughtworks</i> Steve Prewitt, <i>Sumitovant Biopharma</i> Quan Yang, <i>Regeneron</i>
11:45	Close of Day 1	

Online - DAY 2 - Friday May 20, 2022

Presentations are execution-oriented on accomplishments and lessons learned in the Journey

US ET	Topic	Moderator/Presenter
09:30	Welcome & Introduction	Elke Hess, <i>Bayer</i>
09:35	BMS Enabled FAIR	Umesh Bhatt, <i>BMS</i>
10:00	Mind, Body, Heart and Soul - Learnings from the Implementation of Data Mesh Paradigm in Roche Diagnostics	Omar Khawaja, <i>Roche</i>
10:15	The RWD Store – a Data Product that Accelerates Evidence Generation	Alexandra Grebe de Barron, <i>Bayer</i>
10:30	Gilead's Data Mesh Journey: Breaking Down Data Silos	Nghi Ho, <i>Gilead</i> Adrian Estala, <i>Starburst</i>
10:45	GSK's Journey from Data Lake to Data Mesh and Data Fabric Implementation	Ajit Mohapatra, <i>GSK</i>
11:00	Panel Discussion	Facilitated by Dana Caulder, <i>Genentech</i> with panelists: Umesh Bhatt, <i>BMS</i> Adrian Estala, <i>Starburst</i> Omar Khawaja, <i>Roche</i> Alexandra Grebe de Barron, <i>Bayer</i> Nghi Ho, <i>Gilead</i> Ajit Mohapatra, <i>GSK</i>
11:45	Meeting close	

ABSTRACTS/PRESENTATIONS

From Application-centric to Data-centric Architectures

Hassan Abba, R&D IT Strategy & Enterprise Architecture, *AstraZeneca* Raymond Reichard, *BMS*

A data-centric architecture is one that puts FAIR Enterprise-Data at the heart of Value-Chain processes from Research to Commercialization. Such an Architecture has the business outcomes of increased productivity, reduced time-to-market and cost of getting therapies to patients. However, while Enterprise FAIR data is recognized as being strategically important, it is assumed that putting in place Information Technologies such as Data Lakes and Meshes will enable FAIR Enterprise-Data to occur.

In this presentation we propose other underpinning success factors need to be in place for Enterprise-Wide Data-Centric Architecture to become successful. We will run a survey to see which factors are important to you and your organization.

Data to Decision

Emily Gorcenski, Thoughtworks

As businesses recognize a need to leverage competitive advantage in their data, the question remains how we can do that best. Data architectures and data products are too often driven by yesterday's analytics requirements. How can we make better use of our data: for innovation, for discovery, and for optimization? The modern business is a decision-making engine, and data is its fuel. In this talk, we'll explore how Data Mesh approaches not only simplify data discoverability and improve data quality, they shorten the distance between data and decision making, thereby maximizing data's potential.

Regeneron Data Platform – an Enterprise Data Platform to Harmonize the Data Processing and Data Sharing across Regeneron Business Units

Quan Yang, Regeneron

During our digital transformation journey in Regeneron, there is an increasing need to have a common data platform to ingest, processing and sharing data within each business unit as well as across business units. More specifically, besides the common requirements such as scalability, cloud native, and reliability, it also requires the flexibility to allow each business unit to manage their domain of data properly on a shared environment and to have a common management framework to enable data sharing and integration easily across business units.

Our digital data and analytics engineering team has been working with our functional data teams to design and implement the Regeneron Data Platform to achieve this goal during last couple of years. We have leveraged several commercial data platforms/products as well as open source products to compose our Regeneron Data Platform. It has the following major components: data ingestion pipeline, primary data storage, data processing pipeline, data publishing function, and data access function. It also includes data cataloging module, data quality monitor module, data access management module. It connects with Regeneron Data Analytic platform.

We have adopted the Regeneron Data Platform in Research and Preclinical business unit, Global clinical development business unit and Commercial unit; We are in the process of expanding into our industrial manufacture unit; As defined in our initial requirement, each business unit has established its own data governance mechanism to process and leverage respective data within its domain, however, we have been

utilizing a common data cataloging module and initiating a common data governance framework to define and implement the cross functional business data domain and data access policy in order to share data across business units.

Data Mesh Implementation Notes and Learnings from a related industry: Value-based Health Insurance

Steve Prewitt, Sumitovant Biopharma

Like life sciences, healthcare suffers from a lack of integrated data infrastructure. The situation arises in part from natural barriers (delays in claims payment, members moving between products, etc.) and many more are self-imposed through tribal ownership of data, local ontologies, Baroque business processes and a lack of a global perspective on the value of data.

Complicating matters, no agreed upon definition of core terms across groups exist and, multiple, situation-dependent hierarchies are common and necessary. Time-lagged data makes replication of analysis difficult, independent data analysis and storage frameworks and tools abound, different levels of technical savvy and data maturity across groups hampers consolidation. Large P&L impacts of better data management and action-oriented analytics at several different points in the process give these challenges executive weight.

Balancing flexibility, emphasizing business domain knowledge, and enabling integrated insights became a core priority. We tackled this by implementing a data mesh that is a combination of cloud-based data lake technology, rigorous data management and domain-specific data governance. Allow local ownership of data definitions and hierarchy, but centrally documented, managed, and published.

Within domains, users retain freedom in process and tooling, across domains standards are enforced so partners new to an area can use data effectively.

The goal of this presentation is to highlight how one health insurer implemented a data mesh to enable core value-added business processes and advanced analytics around the most important data entity at any insurer: the member.

BMS Enabled FAIR (BE-FAIR)

Umesh Bhatt, BMS

BE-FAIR (BMS Enabled FAIR) is a data capability whose purpose it is to make our data more broadly leverageable as an asset across our organization with the primary objective of accelerating benefit to our patients.

It is helping us to cultivate a data-centric mindset while making Research & Early Discovery data findable, accessible, interoperable and reusable. This is being accomplished through a disciplined approach and innovative platforms and tools. Learn more about how BMS is implementing a data mindset culture!

- Data centric design refers to an architectural construct and mindset in which data, not applications, becomes the primary valued asset. This contrasts application centric design, which locks down data into singular applications and fulfills specific but limited stakeholder communities.
- BE-FAIR (BMS Enabled FAIR) is a data capability whose purpose it is to bring this data mindset into our culture and practices to change the way we think about developing solutions and platforms.
- It introduces a core set of principles to establish data's value beyond a specific application or community and recognizes it as a distinct asset with primary and secondary value. BMS is committed to freeing data's availability from its limitations by adopting FAIR principles.
- As with any capability BE-FAIR is comprised of people, process and enabling technology.

- BE-FAIR brings with it a set of core service offerings that includes information blueprinting and reference data services; these will be complemented by a foundational technology platform and channels, allowing us to scale our data entity-by-entity throughout Research and Early Discovery\ as well as to multiple business units across the enterprise.
- At the heart of BE-FAIR is a change management and data literacy campaign with the purpose of
 cultivating an increasingly data centric mindset while making R&ED data more findable, accessible,
 interoperable and reusable. We are accomplishing this by empowering colleagues via communities
 of practice, an educational program and distinct data advisory/ consulting services.

The RWD Store – a Data Product that Accelerates Evidence Generation

Alexandra Grebe de Barron, Bayer

- Data as a product
 - Why do we need data products in order to bring medicines to patients faster
 - o What are the characteristics of a data product
- Real-World Evidence Generation the value case for Bayer Pharma
 - o Opportunities for healthcare research
 - o Kerendia post-launch research purpose and benefits of patient-centric RWD as a product
- How we do it The RWD Store product line
 - o RWD Dashboard Create transparency on real world data sources to steer data investment planning and maximize re-use for RWE generation
 - Medical Definition Library A central place to describe clinical definitions for the patient cohorts, providing consistency within Bayer Pharma
 - RWD Assets Accelerate collaborations on external real world data sources by enabling fast ingestion and provisioning of re-usable data assets
- Data Mesh principles applied in the RWD Store & Outlook

Gilead's Data Mesh Journey: Breaking Down Data Silos

Nghi Ho, *Gilead* Adrian Estala, *Starburst*

Today's economy is data-driven. At Gilead, our vision is to elevate a data-driven culture and drive new revenue by treating data and analytics as an asset across the enterprise.

To execute the vision, we set out to deliver and democratize access to trusted data and analytics – with speed and efficiency – that allows the business to innovate and achieve differentiated performance.

Gilead was facing several Pharma big data challenges, some of which are unique to our company: exponential growth of data filled with inconsistencies, potential biases, and noise; intensified data interoperability and integration across domains; high cost of data ops and dependencies on centralized capabilities and skillsets.

At the same time, we were present with several opportunities to improve our data landscape: adoption of AWS ecosystem of Data & Analytics services, SAP rollout providing opportunities to simplify the landscape, Gilead-wide focus on deriving value from data and analytics, the emergent of new industry trends such as the data mesh approach that empowers autonomy, abstracts technical complexity, and increases the ratio of value from data to investment.

We learned from our experience that siloed approaches lead to duplication of effort and data inconsistencies, top-down governance does not work, and data movement and data copies increased costs and reduces trust in data. We reached a tipping point where legacy data platforms and monolithic

approaches were no longer scaling. We needed a new strategy and a scalable approach for unlocking an organization's data assets and enabling the democratization of data.

This presentation takes you through our journey of adopting the Data Mesh approach with a cloud-first architecture to deliver an interoperable data & analytics ecosystem that facilitates secure data production, consumption, and governance at scale. We will focus on both technical and organizational challenges, our solutions and lessons learnt as well as some of the areas we are focusing on going forward.

GSK's Journey from Data Lake to Data Mesh and Data Fabric Implementation

Ajit Mohapatra, GSK

Learn GSK R&D's approach through four underlining principles for Data Mesh, i.e.:

- 1. Domain oriented decentralized data ownership and architecture
- 2. Data as a product
- 3. Self-service data infrastructure as a platform
- 4. Federated computational governance.

SHORT BIOGRAPHIES

Technical Meeting Advisory Committee Members and Presenters

SONIA BANERJEE

Global Business Domain Architect for R&D and PDM Gilead



Sonia Banerjee is a Senior Director in Gilead Sciences responsible for Portfolio Architecture and Quality Systems in their Research to Release IT. In her role she is responsible for developing the Next Generation Data and Digital strategy and Roadmaps for the Research, Development, Manufacturing's and Supply Chain functions.

Over her 25 year career Sonia has held multiple leaderships roles, enabling business capabilities for Biopharmaceutical and High Tech Industries. Sonia has also been active across the industry, leading workgroups at industry forums such as Parenteral

Drug Association (PDA) and BioPhorum contributing to industry standards.

Sonia holds a Bachelor's Degree in Mathematics and Graduate Diploma in Systems Management. She is. PMP and Sigma Black belt certified and also holds certifications from MIT Sloan School of Management and Rutgers in Emerging Technologies (Big Data, IoT, ML, AI) for Business.

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HASSAN ABBA

Head of Strategy & Enterprise Architecture AstraZeneca



Hassan Abba has over 20 years experience in building and running architecture teams and delivering digital transformation strategies across the value-chain.

Hassan holds an undergraduate degree in Software Engineering from the University of Manchester and an MBA from Henley Business School.

Since joining AstraZeneca in 2019, he has turned around AstraZeneca's R&D IT Strategy & Enterprise Architecture while building a team of Enterprise Architects covering the end-to-end R&D value-chain. He and his team are working on various

strategic initiatives such as - Research IT, Digital Clinical Operations, Digital Regulatory and Patient Safety Transformation.

Previously, Hassan was at Vodafone Group for 17 years, including the role of Chief Architect on the new Vodafone's B2B Transformation across 27 countries.

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CHRISTIAN BABER, PhD

Head of Scientific & Pharmaceutical Data, Informatics & Systems Janssen



Christian Baber is a chemist by training and holds undergraduate and PhD degrees in computational chemistry with a focus on AI techniques to assess the synthetic accessibility of de novo design compounds.

Christian continued this work with a post-doctoral fellowship on the automated design of targeted combinatorial libraries at the Department of Knowledge Engineering, Osaka University, Japan before moving into industry initially as a computational chemist and cheminformatician.

Christian has a wide breadth of R&D experience across companies ranging from startups to large pharma and diverse therapeutic areas with a focus on informatics and predictive modeling for drug discovery but has also managed lab and automation teams including compound management and high-throughput purification.

Most recently, after spending the previous 6 years leading Scientific Computing & Informatics and R&D IT at Shire Takeda, Christian moved to Janssen (J&J) in 2021 where he now leads the global Scientific & Pharmaceutical Data, Informatics and Systems function in R&D.

In addition to his day job, Christian sits on a number of scientific & industry advisory boards and is a Director of both the Pharmaceutical R&D Information Systems Management Executive (PRISME) forum and Pistoia Alliance.

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UMESH BHAT

Head of Scientific & Pharmaceutical Data, Informatics & Systems *BMS*



Umesh Bhatt has over 25 years of experience in building and delivering digital capabilities for the Pharmaceutical Industry. His key areas of focus are in Data strategy, Information security, Information and Data architectures, Data engineering and Data governance.

Umesh Bhatt has been supporting BMS in various IT leadership roles in Clinical research through development and operations. Prior to BMS, Umesh has worked at iGate (Cap Gemini) as a practice director for life sciences, building capabilities to support life science practice. He also has worked at various IT roles at Schering-Plough/Merck, Novartis Vaccines, Sanofi supporting various roles in clinical data

management and pharmacovigilance.

At BMS, Umesh has led and/or participated in several key initiatives such as the a) Digital Health Initiative, that built a semantic data lake to harmonize data from across 5 business units, b) Clinical data democratization initiative to align on data access and governance decisions for secondary use, c) A Global initiative to identify crown jewels across the company, d) A transformative initiative to move the Pharmacovigilance to a hosted SaaS platform as a service model, and develop a state of the art real world evidence platform for observational health and outcomes research.

Umesh holds an BS degree from Bangalore University on Electronics and Computer Sciences, and a master's degree in Information Management from Stevens Institute of Technology, NJ.

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DANA CAULDER, PhD

Executive Director of Research Informatics & Software Engineering Genentech



Dana Caulder leads the Research Informatics & Software Engineering department within Genentech Research & Early Development (gRED). Her team of engineers, scientists, business analysts and project managers develop, implement and support informatics solutions that enable drug discovery and development processes within Genentech Research and across its interfaces.

Dana received her PhD in Chemistry at UC Berkeley and completed a postdoc at Lawrence Berkeley National Lab. Dana joined Genentech in 2008, and every day works with incredibly talented and passionate people to solve hard problems to

make a difference in people's lives.

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RICHARD (RICH) CROOK Executive Director, Informatics

Executive Director, Informatic Ionis Pharmaceuticals



Richard Crook is an experienced Executive Director of Informatics for Ionis Pharmaceuticals.

At Ionis Richard is responsible for managing the Ionis Research, Development, Operational and Commercial application platforms and interactions as well as the portfolio of system and process improvements and implementations. Because of his long tenure and wide range of experience and skills he is also responsible for shaping the strategies used by the Ionis Informatics function to bring tangible value to the organization.

Richard is passionate about leveraging technology to amplify the capabilities of individuals and groups. Having begun his career as a programmer he understands the power of software to connect people with information and analysis tools enabling the realization of novel innovations. In addition, he feels personally rewarded to be supporting the scientific and drug development functions that bring life saving therapies to patients in need.

He has been at Ionis for 15 years, having spent the most recent years navigating the migration to cloud-hosted applications. Richard has systematically worked through implementations of Veeva Quality Docs, QMS, RIMs, and ETMF. He has also migrated the organization to Microsoft 365 and Dynamics 365 for Finance and Operations. Along with the move to cloud-hosted applications Richard has implemented the infrastructure and processes required for integrations and data analysis across the enterprise.

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ADRIAN ESTALA

VP, Data Mesh Consulting Services Starburst



Adrian Estala is the VP of Starburst's Data Mesh Consulting Services and the host of The Data Mesh Channel. With a background in leading Digital and IT Portfolio Transformations, he understands the value of creating executive frameworks that focus on material business outcomes.

Skilled with getting the most out of data-driven investments, Adrian is your trusted adviser to navigating complex data environments and integrating a Data Mesh strategy in your organization.

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ALEXANDRA GREBE DE BARRON, PhD

Data Product Owner - Digital Transformation & IT, Pharmaceutical Product Platforms, Development Bayer



industry.

Alexandra Grebe de Barron is Data Product Owner for the Real-World Data Store at Bayer Pharma Digital Transformation IT. She drives digital transformation initiatives towards the building of data-centric products applying the data mesh principles.

She works closely with scientists across functions in agile teams to promote handson linked and FAIR data for accelerating translational data science. Alexandra is also engaged in public-private networks like PISTOIA alliance in pre-competitive collaborations on implementing the FAIR data principles in the life sciences

Alexandra holds a PhD in molecular genetics, learned programming and before joining Bayer worked over 10 years as consultant leading global IT projects in the biotech and pharma industry across the Pharma value chain.

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EMILY GORCENSKI

Consultant, *ThoughtWorks*



Emily Gorcenski is a data scientist and engineer by training and a social justice activist by passion.

She studied Aeronautical Engineering and Mathematics at Rensselaer Polytechnic Institute in Troy, NY. Her degree is in Mathematics, with a focus on Numerical Analysis and Uncertainty Quantification.

She has worked in a wide range of technical fields, from aerospace control systems, signal processing, video game development, occupational therapy for rehabilitation, and more.

Presently, she works as a data science and data engineering consultant for ThoughtWorks Germany, where she helps clients build high-quality data-driven, intelligent software applications efficiently.

ELKE HESS, PhD

Digital Lead Chemical & Pharmaceutical Development Bayer



Science divisions.

Elke Hess is Digital Lead for Chemical & Pharmaceutical Development (CPD) in Bayer's Pharmaceutical Division. She drives the CPD Digital Roadmap, a program of digital initiatives critical to bringing new treatments to patients faster.

Elke is a natural scientist and full-stack IT manager. She earned her PhD in nuclear chemistry at Research Center Jülich, where she worked on the development of radiopharmaceuticals. In her 20+ years career at Bayer, she has held various IT positions for different divisions and functions. For example, she was responsible for a global SAP roll-out of finance and logistics processes in 60+ countries or led teams of IT professionals providing R&D IT solutions for the Pharmaceuticals and Crop

Before joining Bayer's Pharmaceuticals Division in 2022, she focused on data governance, including the cocreation of a holistic data strategy with Bayer Pharma executives.

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NGHI HO

Director, Data & Al Platform and Enterprise Data Governance Gilead



Nghi Ho is the Head of Data & Al Platform and Enterprise Data Governance for Gilead IT with 10 plus years of global technical leadership experience. With a background in data strategy, enterprise data governance, enterprise architecture and Al/ML solution delivery, Nghi leads the Data and Al platform strategy and oversees the development and operations of the Gilead DnA (Data and Al) Platform - the strategic Data and Al backbone for Gilead Sciences.

Nghi is an Agile and DevOps champion with passion and experience in building talented, healthy, and motivated engineering teams committed to best practices,

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OMAR KHAWAJAGlobal Head BI Roche Diagnostics

Roche
Omar
experi

Omar Khawaja is a data & analytics thought leader with over 20+ years of experience in the consumer goods and life sciences industry. Omar is passionate about data & customer experience and has leveraged this passion to create reusable data products by putting the end-user in the center and developing self-serving data & analytics platforms for data product teams. Omar currently leads the BI & Analytics Solution & Services teams for Roche Diagnostics with developing & driving the execution of the BI & Analytics Strategy.

Before joining Roche, Omar worked at Novartis in Basel, Switzerland, where he has performed various roles over the last ten years. Originally from Pakistan, Omar first started at Novartis in his home country, where he was the Chief Information Officer (CIO) for more than two years. He then moved to Switzerland in 2012 as CIO for Novartis Pharma Services (Exports Headquarters for Novartis) and also became IT Lead for the Exports Operations of Alcon, the Eye Care Division.

He held other roles like the Regional Business Partner for emerging markets, and spent the last 4 years at Novartis in data & insights roles. He led the sales insights team in the Commercial IT organization and prior to joining Roche, he was leading the commercial analytics team as part of the Analytics Center of Excellence for Novartis.

AJIT MOHAPATRADirector, Enterprise Architect *GSK*



Ajit Mohapatra has 20+ IT Experience on various industries with proven track record of providing robust cost-effective tech solutions to resolve business problems through collaboration with shareholders and clients.

Ajit Mohapatra has joined GSK in August 2021 as Director, Enterprise Data Architect in R&D Tech and is responsible to architect the R&D multicloud platforms, data mesh/data fabric implementation across Data products and design interoperability.

Previously, Ajit was Lead Data science Architect for GEP Worldwide Al Team, responsible for Data platform and Al strategy and initiatives i.e., Microservices, Multi cloud agnostics, data agnostics solutions across GEP. Prior to joining GEP Worldwide in 2020, Ajit was Principal data architect at Xfinity back office, COMCAST and responsible for various initiatives for multicloud, Data and Al needs. Prior

to COMCAST, Ajit worked at various industries i.e., SONY, MPHASIS, CSC, YAHOO, TechMahindra on various technologies and domains.

Ajit holds a bachelor's degree in Computer science from Utkal University, Machine learning program from COMCAST University & Executive education (CTO) program from Wharton University.

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STEVE PREWITTGlobal Head of Digital Innovation Sumitovant Biopharma



Steve Prewitt leads the global Digital Innovation function for Sumitovant Biopharma. In this capacity, Steve is leading the buildout of clinical and commercial data platforms and custom development frameworks to deliver new and novel data-driven solutions aimed at accelerating discovery, development, and commercialization of Sumitovant's products.

Prior to Sumitovant, Steve was the Chief Analytics Officer at Healthfirst, a value-based health insurer in New York City and, before that, led technology teams in business transformation, data management, and technology strategy in pharma, CRO and provider organizations.

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RAY REICHARDSenior Director of Enterprise Architecture *Bristol Myers Squibb*



Ray Reichard has over 25-years of experience working in the pharmaceutical industry. He recently accepted a role as the R&D Enterprise Architect and is responsible for establishing R&D wide architectural strategy.

Ray started his life science career in Bioinformatics at Fox Chase Cancer Center and SmithKline Beecham / GSK, then moved on to a variety of senior IT roles at Merck, Roche and most recently at BMS. A data and bioinformatics enthusiast at heart, he has also worked across many different IT functions and technologies throughout his career.

In past roles at BMS Ray and his teams have successfully delivered many critical IT solutions for Research, including establishing a cost-effective BPM framework, developing BMS's early application hosting cloud strategy, deploying many of BMS's first cloud-based applications, and was the first to successfully build and utilize a Hadoop data and computing cluster used to analyze clinical biomarker data.

At GSK, as the central component of a \$150M dollar investment, Ray led the team that assembled and annotated the industry's first human expressed transcriptome (using proprietary cDNA library) and algorithms he developed. The resulting work resulted in identification of many potential drug targets. Ray holds undergraduate degrees in both Biology (Physiology) and Computer Science (Math) from Pennsylvania State University and Kutztown University, and a master's degree in Computer Science (ML/AI) from The Johns Hopkins University.

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DAVID SEDLOCK, PhD

Project Coordinator PRISME Forum



David Sedlock retired in 2019 as the Global Head of Research IT at Takeda Pharmaceuticals Ltd. where he was responsible for the planning, development and management of software application platforms supporting the company's drug discovery and early clinical programs. This included application development, design, deployment, integration, and support for the various systems and services used by the Research and Early Development scientific staff including bioinformatics, cheminformatics, LIMS, and GLP systems.

David is currently engaged in various consulting activities including a commitment to the PRISME Forum organization managing various project work to further the mission of the Forum.

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SUSIE STEPHENS, PhD

Global Head, Analytics, Data and R&D Architecture *Pfizer*



Susie Stephens is a strategic leader in the pharmaceutical industry with over two decades of experience in informatics, science and technology. She is currently Senior Director, Analytics & Master Data Architecture at Pfizer.

Prior to that she was Head of In Silico Immunology at Johnson & Johnson for the Immunology Therapeutic Area. She has also worked at Oracle and Sun Microsystems where she had roles spanning pre-sales, product management and business development. Susie has a PhD in Physiology; post-doctoral experience in Molecular Biology; and is an alumnus of Harvard Business School.

Susie has over 20 peer reviewed papers and has presented at many industry conferences on data, advance analytics, precision medicine, and innovation. She is the founding Chair of the PRISME Forum.

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JOHN WISE Program Coordinator PRISME Forum



John Wise is the Program Coordinator for the PRISME Forum and is also a consultant at the Pistoia Alliance with responsibilities that include business development and member relations. He specializes in the coordination of precompetitive collaborations in life science R&D IT and healthcare. John has had a long-time commitment to encouraging pharma to use expert, third-party, cost-effective, regulatory-compliant, secure, hosted information services.

Previously, John has held Informatics leadership roles in a variety of organizations including the University of London, Sandoz, the Imperial Cancer Research Fund (now CRUK), Roche, Ipsen and Daiichi Sankyo. John has also worked in the

technology supply side of the industry. In these roles, he has gained direct hands-on experience writing analytical software, teaching computation, delivering IT capabilities, and providing computer-based services to the discovery, non-clinical development, clinical development, and regulatory affairs domains of the life-science industry.

John graduated in physiology from the University of Oxford and received a post-graduate certificate in education from the University of London.

John is PRISME Forum's Program Coordinator and is a member of the Technical Meeting Advisory Committee.

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QUAN YANG, MS, PhD

Head of Research and Preclinical Development IT Regeneron



Quan Yang is an accomplished Informatics/IT leader with over twenty-plus years of industry experience in the pharmaceutical/biotech industry and the research informatics/technology field. He joined Regeneron in 2019 to head the Research and Preclinical Development IT group and to lead the digital data transformation across Regeneron research. Prior to that, he was the global head of Biological Information Systems Group for Novartis Institutes for BioMedical Research. He has also worked for Monsanto, Nokia, Verizon and several biotech companies. In addition, he has been involved in several industry alliance organizations such as WAP standard group under W3C, PRISME forum and Pistoia Alliance.

Quan has more than ten years of working experience in molecular biology labs and obtained PhD in molecular biology and MS in computer science. Strong passion to work with the scientific community and enable data-driven drug discovery research by providing practical informatics solutions. Proven track record to provide computational platform(s) to meet the dynamic needs of fast-paced drug discovery research across multiple disease areas and biology disciplines. He has rich experience in leading large global team and building high performing team in large, complex multi-national corporate environment.

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