



THE TOP 25 VOICES IN PRECISION MEDICINE ASIA

An Elite Compendium of Thought
Leaders in Precision Medicine

DECEMBER 2020

insight Monk
... deep expertise

PRESENTED BY

BIS Research
Emerging Technology Market Intelligence

Dear Reader,

BIS Research and InsightMonk are excited to present the third edition of the Top 25 Voices Awards Initiative as 'The Top 25 Voices in Precision Medicine Asia', an elite compendium of thought leaders in precision medicine from across Asia.

The Top 25 Voices in Precision Medicine Asia is an awards initiative to recognize the exemplary work of an eminent list of thought leaders working toward advancing the impact of precision medicine in Asia. This initiative presents a new edition of the Top 25 Voices awards, which began in 2019 with 'The Top 25 Voices in Precision Medicine' that aimed at recognizing the global leadership of individuals in the field of precision medicine.

This year, the initiative has narrowed its focus to Asia to celebrate the dynamic rise in innovation in the field of precision medicine in the region. Governments and academic organizations in Asia are increasing investment amounts in directing more resources for enhancing their genetic understanding of diseases. In addition, they are undertaking an increasing number of initiatives to sequence the genome of respective population bases. Moreover, corporate organizations have also made significant strides in achieving the goal of designing drugs, treatment, and other products, tailored to individual patients in Asia. At the center of such dynamic advancements and market developments are individual contributors who have been able to make their mark with extraordinary levels of laboratory research, product development, and policy development.

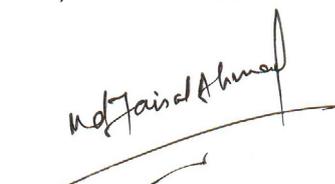
The growth of precision medicine in Asia can largely be credited to the presence of a diverse group of highly skilled interdisciplinary leaders who have contributed with their innovation, organization, and guidance. These individuals, with their thought leadership and 'voice', have been able to influence

and improve the Asian precision medicine ecosystem. BIS Research, the authority on emerging technology market intelligence, and InsightMonk, the world's only platform featuring an active community of specialized deep-technology experts, recognize and value these individuals' contributions. To that end, this compendium is an initiative to celebrate the diversity and talent in the industry as well as to showcase their extraordinary achievements.

The Top 25 Voices for the compendium have been selected via a screening process that made use of an aggregate impact matrix-based research design. This type of methodology was the most suitable for the study (which includes the self and peer nominated leaders within the Asian precision medicine ecosystem). The selection process was based upon publicly available data and a balanced scorecard of leaders developed from the nominations filed by themselves and their peers.

We extend our gratitude to all those who nominated themselves and their peers for the purpose of this compendium. We would further like to appreciate the efforts of our team of researchers and executives who contributed toward the compilation of this elite list of thought leaders.

We invite you to read through our compendium and hope you enjoy reading through these impressive profiles of the selected thought leaders as well as the key insights that they have shared with us during the nomination process.



Faisal Ahmad
CEO & Founder, BIS Research

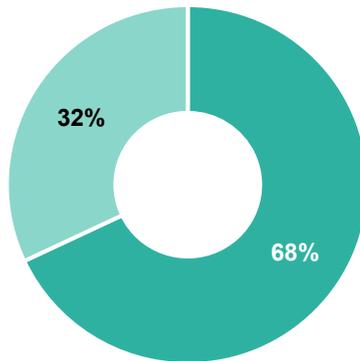


Arvind Pal
Community Head, InsightMonk



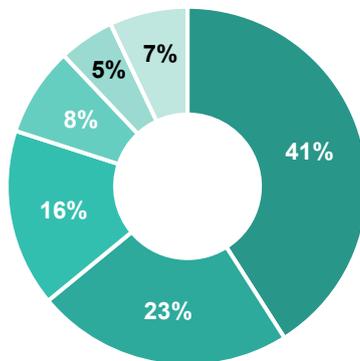
NOMINEE DEMOGRAPHICS

Demographics by Gender



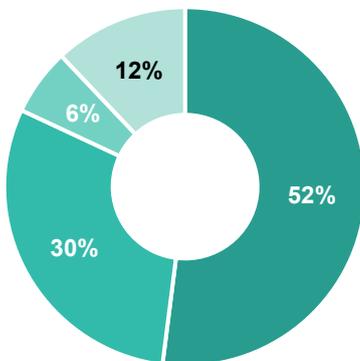
- Male
- Female

Demographics by Region



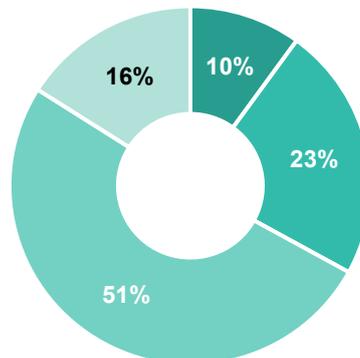
- China
- Japan
- India
- Singapore
- Republic of Korea
- Rest-of-Asia

Demographics by Sector



- Industry
- Academia and Research
- Policy Makers
- Healthcare Providers

Demographics by Experience

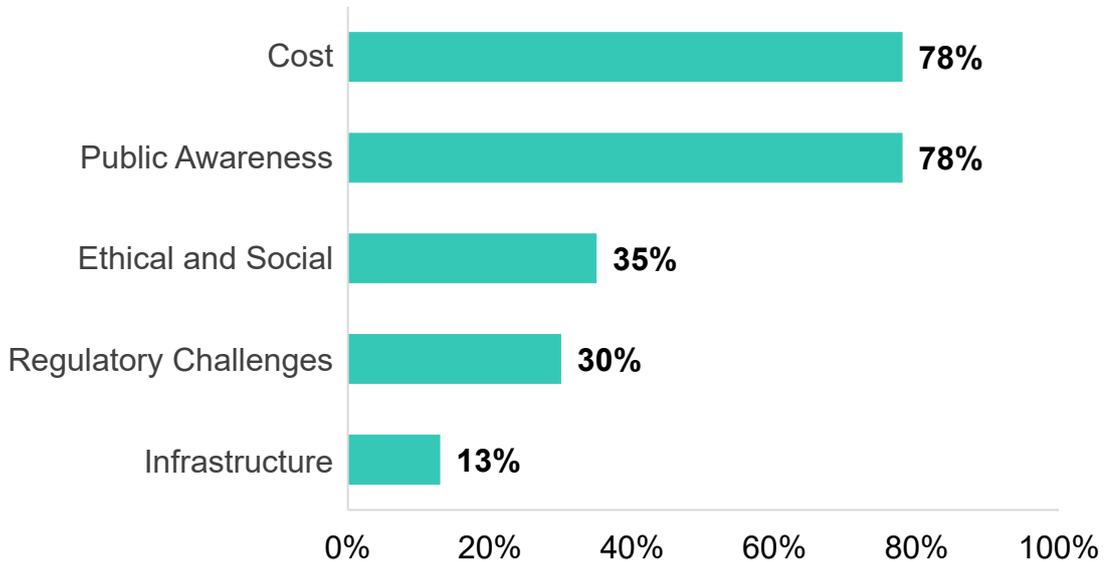


- 0-5 Years
- 6-10 Years
- 11-20 Years
- More than 20 Years

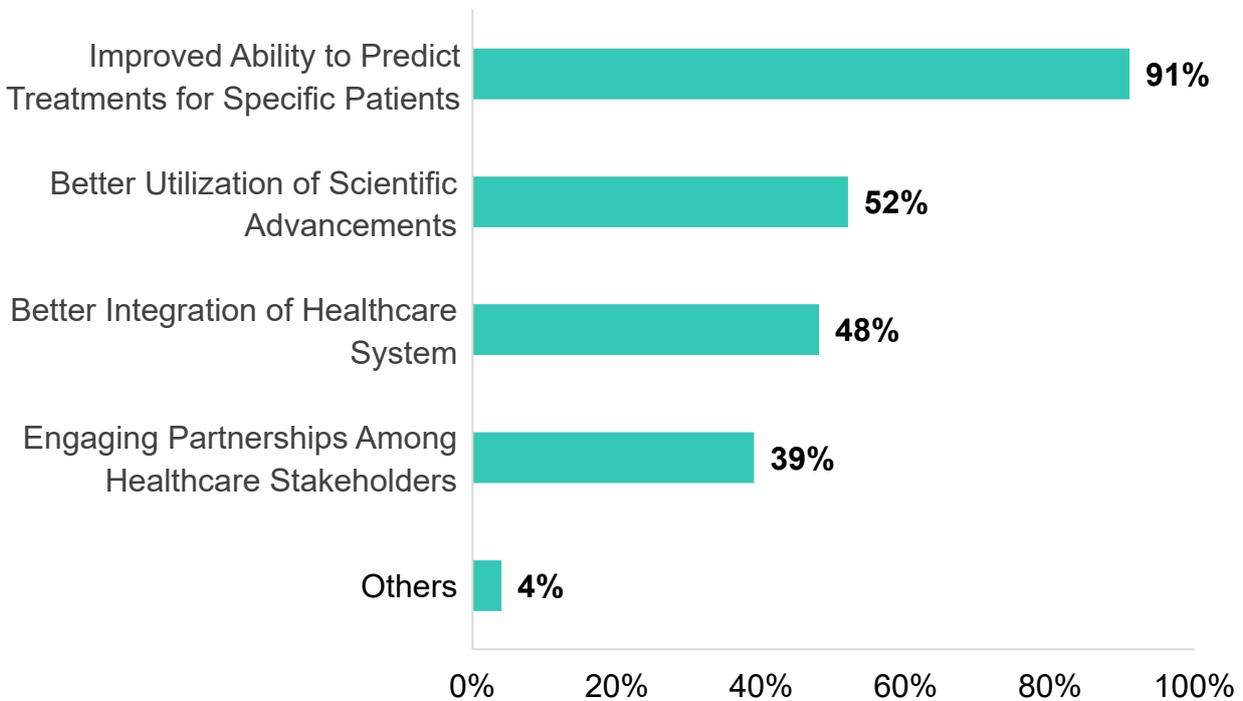


THOUGHT LEADER PERSPECTIVE

1. Which of the following are the extreme challenges faced by the precision medicine ecosystem in Asia?*

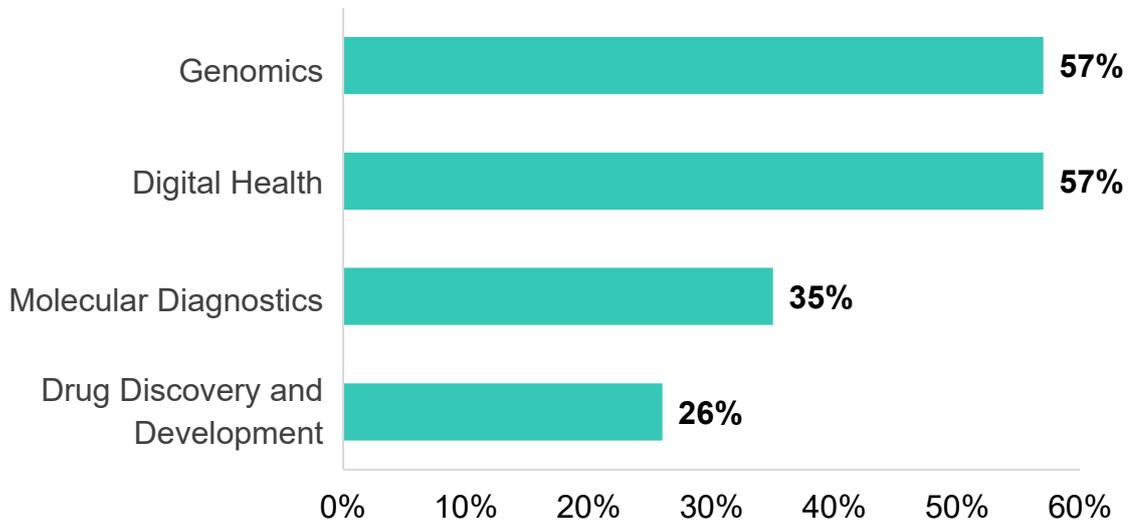


2. What are the potential benefits of precision medicine that will improve clinical continuum in Asia?*

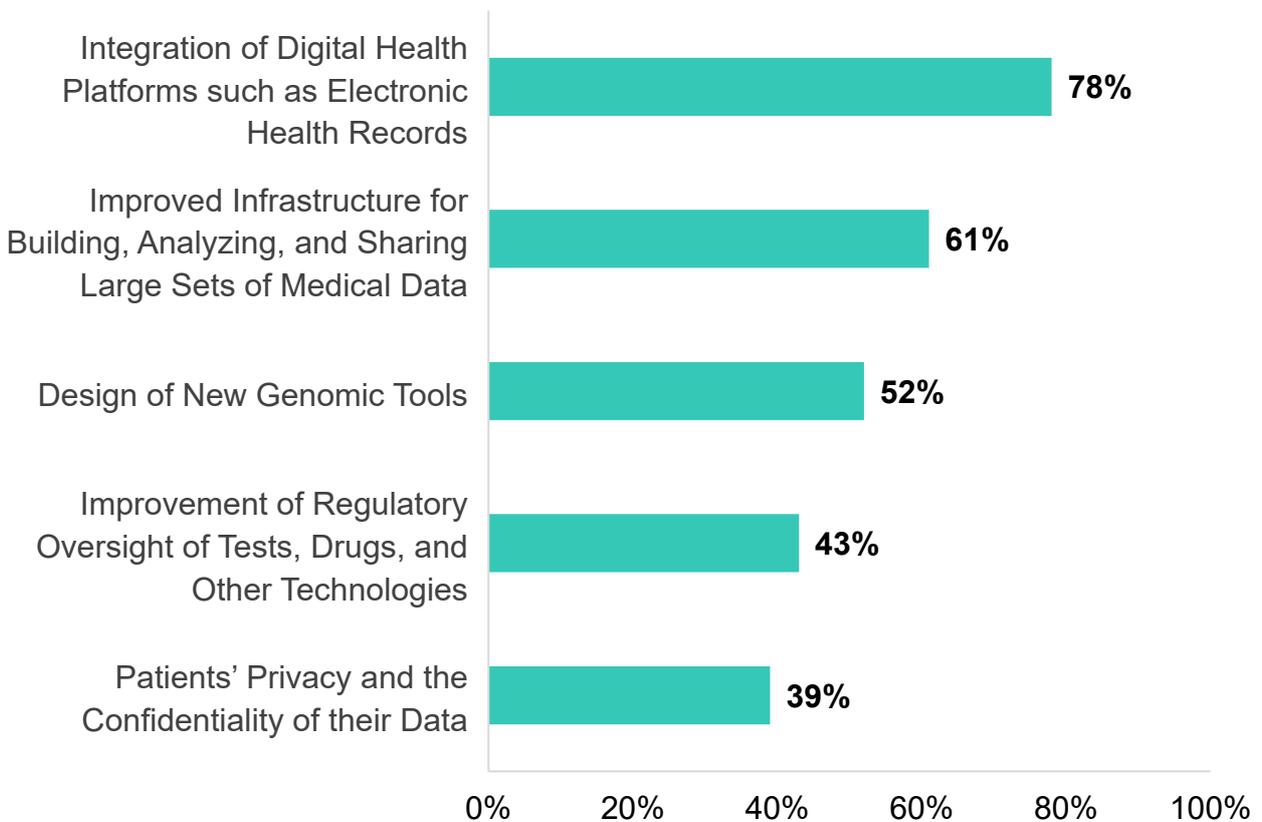


* Answers can fall into 1 or more of the categories that we have defined.

3. What is the one area that should be focused on in the next five years for precision medicine to have the highest impact on the future of healthcare in Asia?*

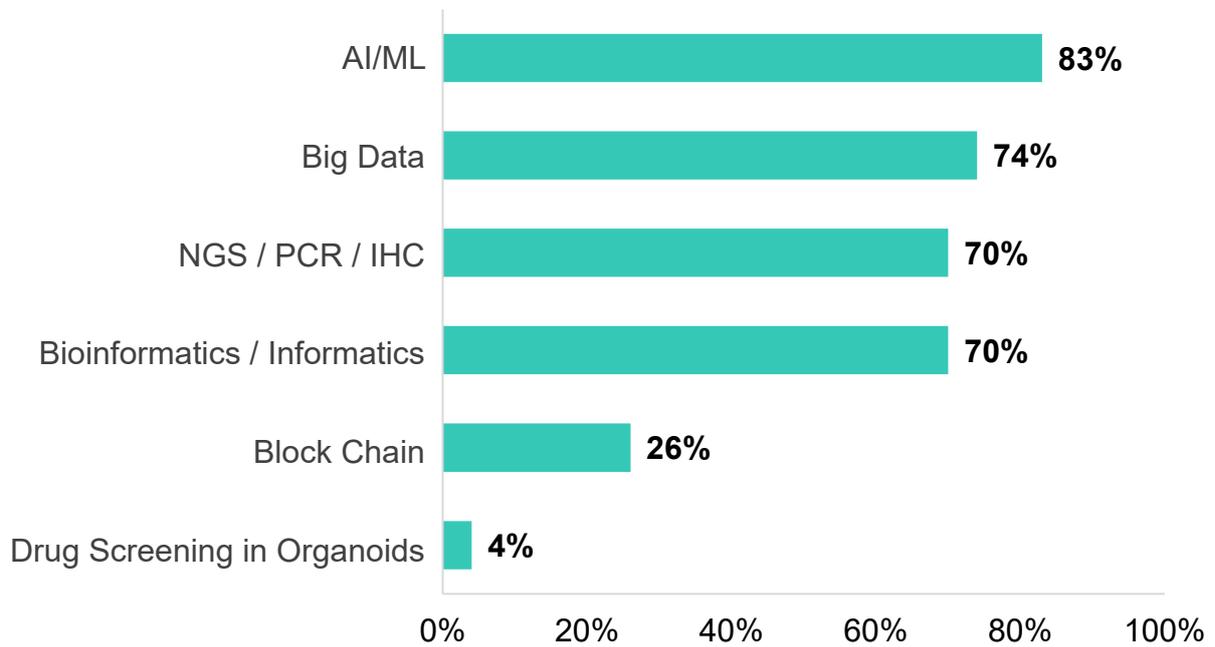


4. Which are the key developments made to promote precision medicine approach across healthcare disciplines in Asia?*

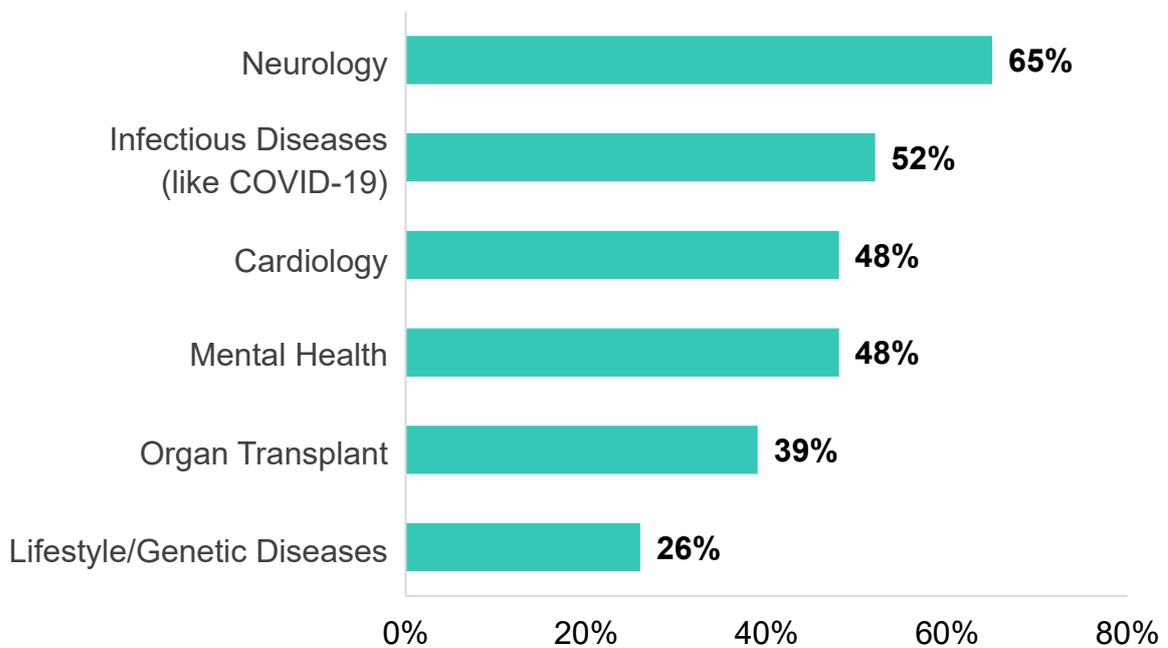


* Answers can fall into 1 or more of the categories that we have defined.

5. In your institution/organization, what kind of next-generation technology are you taking advantage of to implement precision medicine?*

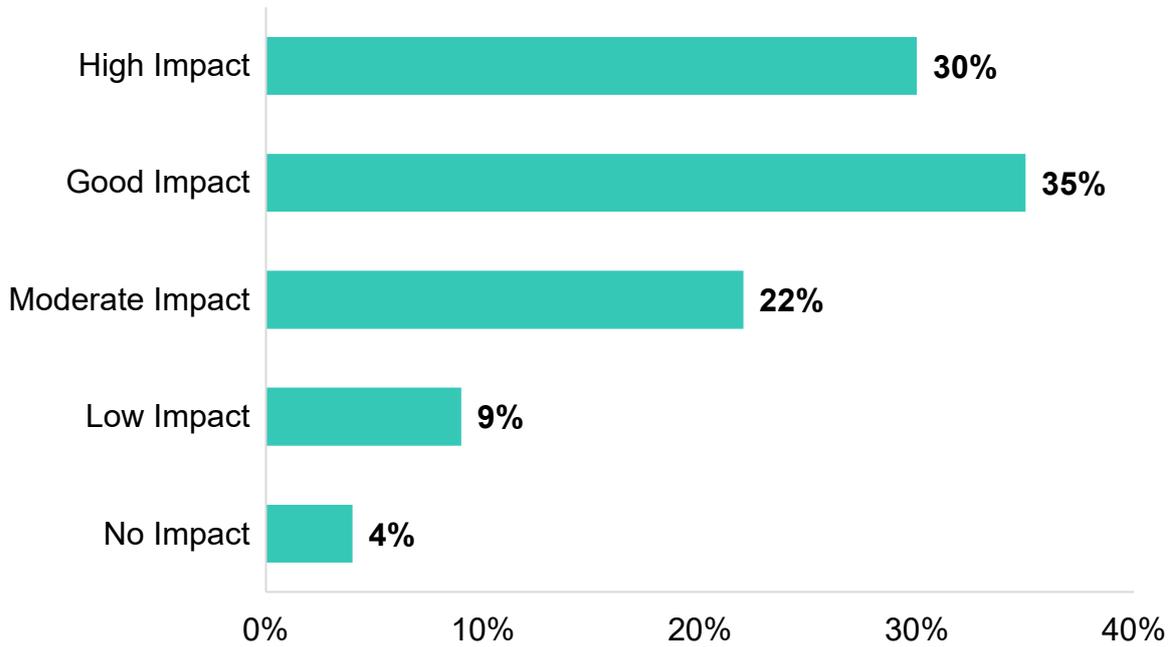


6. Where do you see precision medicine going in the future? We are seeing the most use of precision medicine and personalized medicine with cancer now, but where might the next frontier be?*



* Answers can fall into 1 or more of the categories that we have defined.

7. What do you think the impact of COVID-19 will be on the progress of precision medicine and research in Asia?



THE COMPENDIUM



ANURADHA ACHARYA
Founder and CEO
Mapmygenome India Ltd.



ASHOK GOPINATH
Co-Founder and Director
TGB Diagnostics Foundation



DUNCAN YU
President
MGI Tech Co., Ltd.



EDWARD KAI-HUA CHOW
Associate Professor & Research
Director
National University of Singapore



GRETCHEN WEIGHTMAN
Vice President and General Manager, Asia
Pacific and Japan
Illumina, Inc.



HIROSHI YASUI
Project Associate Professor, Institute of
Medical Science
University of Tokyo



HITESH GOSWAMI
Co-Founder and CEO
4baseCare Genomics Pvt. Ltd.



HONGKANG MEI
Vice President, Lifebit Business Unit
iCarbonX



HONGQI WANG
COO
BGI Genomics Co., Ltd.



JAMEEL AHMAD KHAN
Founder and Managing Director
Lifecode Technologies Pvt. Ltd.



JUNHUA LI
Director, Infection Omics
Research Institute
BGI Genomics Co., Ltd.



MAARJA-LIISA NAIRISMÄGI-SAEINAS
Precision Medicine Partner
F. Hoffmann-La Roche AG



MANJIRI BAKRE
Founder and CEO
OncoStem Diagnostics Pvt. Ltd.



MUTSUAKI SUZUKI
Director
National Institute of Genetics



PATRICK TAN
Executive Director
Genome Institute of Singapore



PHILIPPE PINTON
Medical Affairs Head, Specialty Therapy
Takeda Pharmaceutical Co. Ltd.



RAM LAXMAN
President and General Manager, Asia
10X Genomics



SENTHIL KUMAR SUNDARAM
Chief Clinical Officer
Prenetics Ltd.



SIMRANJIT SINGH
CEO
Guardant Health AMEA



SUKANG LEE
CEO
Macrogen, Inc.



TAO HUANG
Associate Professor at Shanghai
Institute of Nutrition and Health
Chinese Academy of Sciences



VEDAM L. RAMPRASAD
CEO
MedGenome Labs Ltd.



WOONG- YANG PARK
CEO
GENINUS, Inc.



YIHAO ZHANG
President & CEO
GE Healthcare China Co., Ltd.



YUKARI NISHIKATA
Head of Oncology Therapeutic Unit,
Japan and Asia
Takeda Pharmaceutical Co. Ltd.



**ANURADHA
ACHARYA**

Founder and CEO
**Mapmygenome India
Ltd.**



ASHOK GOPINATH

Co-Founder and Director
**TGB Diagnostics
Foundation**



“ For Precision Medicine To Be A True Success, We Need Representative Data From All Populations. Mapmygenome Hopes To Solve A Part Of This Disparity Starting With The Indian Genome Data First.”

Anu Acharya is a pioneer of genomics in India. She is the founder and CEO of Mapmygenome, India. Prior to Mapmygenome, she was the founder and CEO of Ocimum Biosolutions. During that time, she also held the position of CEO at Gene Logic. Previously, she has worked as a consultant for SEI Information. She is a recipient of numerous awards, such as the 2011 Young Global Leader by the World Economic Forum and the ET Women Ahead honor by the Economic Times in India. She was named in the Red Herring Magazine in the list of 25 Tech Titans under 35 in 2006 as well as 2018 W-power trailblazers by Forbes. She is also a Health Scholar at Aspen Institute.

Anu is often regarded as the woman bringing code and data to Indian Genome and introducing genomic solutions in India. At Mapmygenome, she leverages state-of-the-art DNA sequencing and SNP Genotyping technologies, coupled with the latest research to screen for genetic predisposition and diagnose complex genetic disorders. At Ocimum, she developed Oppgene, a product to optimize gene identification.

“ Home To Over 4.5 Billion People Of Incredible Diversity, It Is Incumbent To Educate, Train, And Facilitate Access To Precision Medicine In A Widespread And Equitable Manner And Reiterate Our Conscionable Commitment To Human Health And Well-Being.”

Ashok Gopinath is the Co-founder and the Director of The Genome Bridge (TGB) Diagnostics Foundation in India. Before TGB, at Illumina, he was the Commercial head, India and, prior to that, Head of Applied Genomics, India. Before joining Illumina, he held positions at Sanofi-Aventis as Collaboration Project Leader, R&D; Genotypic Technology as Head of next Generation Sequencing; and Connexios Life Sciences as Head of Biology.

Ashok started TGB as a mandate to create access to genomic data for disease management and therapy through clinical genomics approaches. At Illumina, he established novel high-value commercial engagements and explored NGS and microarray-based applications by identifying the genomics market in India. At Sanofi, his team worked on region-specific disease manifestations in India to understand local approaches to complex diseases both therapeutically and epidemiologically. As a postdoctoral researcher at Cornell, he studied the broad area of axon guidance, using the mouse olfactory epithelium as a model system.



DUNCAN YU

President

MGI Tech Co., Ltd.



“MGI’s Technical Breakthroughs Are Making Genome-For-All Possible, And Bringing The Power Of Choice To The Market. Every Individual Deserves A Sequenced Genome That Is Affordable And Accurate.”

Duncan Yu is a seasoned professional with experience of more than 25 years in Lifesciences and BioTechnology. He is the President of MGI in China, as well as the Executive Vice President of the BGI Group. He has held multiple leadership roles at BGI such as Chief Executive Officer, International Region, Chief Operating Officer, General Manager, South China Region and General Manager, Asia Pacific. Duncan has also served as the General Manager, Life Sciences China at GE Healthcare in China.

MGI focuses on innovative R&D, production, and sales of DNA sequencing instruments, and products to support life science research, precision medicine, and healthcare. He has led the development of MGI’s clinically ultrahigh-throughput gene sequencer, MGISEQ-T7, and its multi-omics platforms, which include genetic sequencing, mass spectrometry, medical imaging, and laboratory automation. The T-7 has enabled simultaneous but independent operation of up to four flow cells, which means single-cell RNA sequencing, whole exome sequencing, and whole genome sequencing can be run simultaneously.



EDWARD KAI-HUA CHOW

Associate Professor & Research Director

National University of Singapore



“By Understanding Both The Advantages And Limitations Of AI In Healthcare And Drug Development, Advancements In Precision And Personalized Medicine Are Finally Becoming Truly Effective At Addressing Patient-Specific Needs.”

Edward Kai-Hua Chow is the Principal Investigator of Cancer Science Institute of Singapore at NUS. He is also an Associate Professor of Department of Pharmacology at NUS School of Medicine. He is the Co-founder of KYAN Therapeutics, a clinical-stage AI biotechnology company. He holds expertise in Drug Discovery, Liquid Biopsy, Complementary Diagnostics, Epigenetics, and AI in Medicine.

His first product with KYAN Therapeutics is an AI-optimized liver cleanse detox health supplement, in partnership with Powbab. His team at NUS uses small dataset AI analytics for drug development and precision medicine. Their most noteworthy contribution to precision medicine has been the implementation of the Quadratic Phenotypic Optimisation Platform (QPOP), into the clinic as a clinical decision support (CDS) platform. QPOP is able to accurately identify the most appropriate regimen from a biopsy within six days. Chow’s laboratory at Cancer Science Institute is developing a comprehensive approach to understand and treat cancer by utilizing oncogene-specific mouse hepatic tumor models to better understand how different oncogenes contribute to the formation and maintenance of CSCs.



GRETCHEN WEIGHTMAN

*Vice President and General Manager, Asia Pacific and Japan
Illumina, Inc.*



“The Successful Implementation Of Genomics Technology Relies On Whole-Of-System Change. Possibilities Of Rapid Diagnosis, Early Intervention, Prevention And Targeted Therapy Have Allowed Genomic Medicine To Transform How We Deliver Healthcare, Promising Better Patient Outcomes And An Efficient Health System.

Gretchen Weightman is the Vice President and General Manager, Commercial, Asia Pacific and Japan at Illumina. At Illumina, before her current role, she was the Director of Sales, Asia Pacific, and Senior Marketing Manager- South Asia Pacific. Prior to Illumina, she has held positions of Marketing Manager-Asia Pacific and Marketing Manager at Applied Biosystems.

Gretchen has played an influential part in the design and deployment of Illumina products in Clinical Whole Genome Sequencing, specifically for rare and undiagnosed genetic diseases in Asia (Japan, India, and Korea). She has also been tremendously active in community and patient advocacy for rare and undiagnosed genetic diseases across Asia-Pacific. Gretchen is now deploying approaches to accelerate the development of precision oncology and pioneering genomic solutions for cancer prevention and screening in high risk groups in Japan. She had a key role in deployment of the COVIDSeq product from Illumina, the first FDA EUA next-generation sequencing product for the whole viral sequencing of SARS CoV-2 for diagnosis and surveillance.



HIROSHI YASUI

*Project Associate Professor, Institute of Medical Science
University of Tokyo*



“Based On High-Precision Molecular Analysis Technology, We Have Established A Collection System With A View To International Standardization By Recording Time Stamps Of Biological Sample Bank.”

Hiroshi is a project associate professor at Institute of Medical Science at the University of Tokyo, Japan. Before that, he was a practicing physician and Assistant Professor at the Department of Internal Medicine, Sapporo Medical University. Between 2004 and 2006, he was a Research Associate at the Department of Medical Oncology at Dana-Farber Cancer Institute and Department of Medicine at Harvard Medical School. He has over 120 publications and 4500 citations. In 2012, he won the 17th EHA Congress Travel Award for JSH Young Hematologists, Japan Society of Hematology. He also won the Incentive Award for International Conference, the Japanese Electrophoresis Society in 2011.

Hiroshi’s research covers a multitude of fields, such as biological system, comprehensive biology, tumor therapeutics, biomedical science, internal medicine, boundary medicine, pathological examination with expertise in hematology, oncology, and translation medicine. His work on DNA synthesis inhibitors for the treatment of gastrointestinal cancer is highly regarded. He led the analysis of lenalidomide-resistance in multiple myeloma and the development of trifunctional antibodies in multiple myeloma.



HITESH GOSWAMI
Co-Founder and CEO
4baseCare Genomics
Pvt. Ltd.



“The Use Of Genomics Technology, 3D-Organoid Models, Mobile Technology, And Data Science (AI, MI) In Our Solutions Provide Oncologists The Ability To Follow Personalized Cancer Therapies, And Guide Pharmaceutical Companies To Enhance Their Pre-Clinical And Clinical Trial Strategies Based On Real-World Clinico-Genomics Database.”

Hitesh Goswami is the Co-founder and the CEO of 4baseCare Genomics in India. Prior to 4BaseCare, he also co-founded another genomic company called Bionivid Technology, where he is the current Program Director for Genome Education. He started his career in Genomics as an Application Scientist at Genotypic Technology in India.

A passionate neurobiologist, Hitesh co-founded 4baseCare with the vision to develop solutions using technologies like genomics and digital health technology to personalize patient care in oncology. The goal is to launch a genomics-based test for oncologists and cancer patients at an affordable rate in India. It was the first company from Asia-Pacific to be selected by the Genomics leader, Illumina for its accelerator program. He is responsible for Bionivid providing Informatics solutions to academic and private organizations across India and Asia for high throughput genomics data, specifically next-generation sequencing (NGS).



HONGKANG MEI
Vice President, Lifebit
Business Unit
iCarbonX



“I Am Motivated To Innovate Drug Discovery R&D, Diagnostic Development, And Healthcare By Development And Planning In Pharmaceutical, Multi-Omics IVD R&D, And Genetics Testing.”

Hongkang Mei is the current Vice President, Head of Business Development and Strategy, Lifebit Business Unit at iCarbonX in China. Prior to his current role, he was the Executive Director, Head of Project Management Office at WuXi NextCODE, where he also served as the Executive Director of B2B Business Development. Prior to WuXi, he was the Associate Director, head of Informatics, R&D China at GlaxoSmithKline. He started his career as a Bioinformatics Programming Engineer at Axcell Bioscience Corp, followed by Bioinformatics Scientist at Physiome Sciences and then Senior Scientist, Bioinformatics, at Paradigm Genetics.

At iCarbonX, Hongkang has been responsible for the engagement and the commercialization of ICX LifeBit data product, AI Capability, and HT-IS platform service. At WuXi, he introduced genetic testing products like FMI CDx and was involved in the development of the WXNC CLIMS system. While at GSK, he not only helped deliver more than six targets for neurological diseases with wet lab validation but also helped discover biology markers for ALS, alternate T-Cell Differentiation MOA, and M1/M2 polarization.



HONGQI WANG

COO

BGI Genomics Co., Ltd.



“Gene Synthesis Biosecurity Is Important For Application Development In Synthetic Biology Within The Developing Bioeconomy In China And Throughout Asia.”

Hongqi Wang is the current Vice President of BGI Group in Shenzhen and the COO of BGI Genomics, China. Prior to this, he was the Chief Business Officer, and the VP, Executive Consultant before that. Before BGI, he was the General Manager of Greater China at Bruker Daltonics. He was also a Senior Scientist at Millenium Pharmaceuticals in the U.S. He started his career as a Senior Scientist at PerSeptive Biosystems and held positions of Lab Manager and Product Manager. He received the CUSBEA scholarship to pursue his Ph.D. at Purdue.

Hongqi is specialized in life science, genetics, synthetic biology, biotech, pharmaceutical, environmental, food safety, forensics, and clinical research. At BGI, he is responsible for all the products and services including genomics, proteomics, medical, and clinical applications. At Millenium, he developed a natural product and combinatorial library screening by high-throughput LC/MS/BioAssay technology. He has also worked on immunological capillary electrophoresis and has experience involved in protein and peptide characterizations, drug screening, and LC/MS/MS.

“Defining The Design Parameters Of Nanconjugates To Effectively Target Pancreatic Cancer Cells, Depends Upon Components Such As The Targeting Agent To Nanoparticle Ratio, And The Hydrodynamic Diameter Of The Nanoconjugate.”

Jameel Ahmad Khan is the Founder and Managing Director of LifeCode Technologies in India. He is also the Head of Research and Development at Trivitron Healthcare. Prior to starting his journey as an Entrepreneur, Jameel was a Biomedical/Biopharma/Lifesciences research scientist. He worked as Postdoctoral Scientist at the Philip University of Marburg, Germany. He had a brief post-doctoral stint at Mayo Clinic in the U.S. and completed his Ph.D. at the CSIR-Institute of Genomics and Integrative Biology (CSIR-IGIB) in India.

Jameel aims to design, develop, and deploy technology solutions to “improve the quality of life” at LifeCode, where he led the design and development of molecular diagnostics assays and panels. Lifecode Technologies was the first to generate NGS data on Oxford Nanopore platform in India and also Established innovative SOPs for MDx/PGx tests for Thalassemia, Sickle Cell Anemia, Clopidogrel, Warfarin & Statin in a Built-Operate-Transfer (BOT) model. In Germany, he established stable cell lines as well as Biochemical & MolBio assays for studying cytoskeletal dynamics during “Entotic” cell invasion in cancer cells. During his post-doctoral, he was involved in Nanobiotechnology, where he was engaged in the development of nanoparticle-based targeted drug delivery systems. Jameel is also an advocate of precision medicine as a frequent speaker at Indian universities.



JAMEEL AHMAD KHAN

Founder and Managing Director

Lifecode Technologies Pvt. Ltd.





JUNHUA LI

*Director, Infection Omics
Research Institute*

BGI Genomics Co., Ltd.



“ I Am Currently Focused On Understanding And Utilizing Multi-Omics (Metagenomic, Metabolomic, Lipidomics, Proteomic, And Human Genetic) Technique To Better Delineate Metabolic Syndromes Such As T2D And Advanced Precision Medicine.”

Junhua Li is the Director of Infection Omics Research institute at BGI Genomics. Prior to his current role, he was the Deputy Director of Institute of Metagenomics at BGI, and before that, Principal Investigator for Human Microbiome at BGI. As a seasoned researcher, he has over 25 publications and 21000 citations. His most recent publication on Multiple approaches for massively parallel sequencing of SARS-CoV-2 genomes directly from clinical samples is gaining high attraction.

Currently at BGI, Junhua leads a team to apply innovative genomic technologies to investigate the basic underpinning mechanisms and to advance the diagnostic and therapeutic approaches of infectious diseases associated with viruses, bacteria, and parasites. An expert in developing bioinformatic methodologies for metagenomics and microbial studies, he is highly credited for leading the Metagenomics of the Human Intestinal Tract (MetaHIT) project, as well as International Human Microbiome Standards (IHMS), to characterize human gut microbiome.



**MAARJA-LIISA
NAIRISMÄGI-
SAEINAS**

*Precision Medicine
Partner*

**F. Hoffmann-La Roche
AG**



“ Precision Medicine Is The Future Of Healthcare And Will Bring Value To All Stakeholders By Improving Patient Outcomes, Limiting Toxicities And Minimizing Economic Waste.”

Maarja-Liisa Nairismägi is currently the Precision Medicine Partner at Roche in Singapore. Prior to Roche, she has held positions of Regional Medical Manager as well as Medical Science Liaison & Project Manager at ACT Genomics. Before entering the industry, she was a Cancer Researcher at National Cancer Centre of Singapore. She received her Ph.D. in Molecular Biology from Aarhus University.

Liisa was the Co-founder of Lymphoma Genomic Translational Research Laboratory and researched the genomic landscape of solid tumors with a special focus on lymphomas. Her team was responsible to molecularly characterize lymphomas to understand the underlying biology and develop novel diagnostic and treatment means. She studied the genomics and epigenetics of solid tumors with the aim to characterize their mutational landscape and identify novel targets for personalized therapy. At ACT, she specialized in solid tumor molecular diagnostics, both for tissue and liquid biopsy testing and provided medical and scientific support about precision medicine to strategically position the products.



MANJIRI BAKRE

Founder and CEO

**OncoStem Diagnostics
Pvt. Ltd.**

OncoStem



MUTSUAKI SUZUKI

Director

**National Institute of
Genetics**



“ Precision Medicine Will Banish The Anguish Of ‘Trial And Error’ Approach Used For Many Diseases, Especially Cancers. It Will Lead To Enhanced ‘Quality Of Life’ For Patients And Better Outcomes.”

Manjiri Bakre is the Founder and CEO of OncoStem Diagnostics based in India. Prior to OncoStem, she was the Principal Scientist at Phillips Research where she was responsible for multi-disciplinary research on ‘point-of-care’ diagnostics. Prior to Phillips, she was a Group Leader for Avesthagen Limited. She also served as a Research Scientist for Genome Institute of Singapore. She was named as one of the 25 Dominant Leaders to Watch in Health Care Industry 2019 and the Best Entrepreneur, Global Women in STEM, Start-Up in 2016. She is also the only Indian to win the prestigious KBCF award and to get selected to deliver a talk at the Global Breast Cancer Conference in 2018 at Incheon, South Korea.

Manjiri is a veteran in cell biology and cell signalling research and technology. OncoStem is currently focused on developing novel cancer diagnostic tests under her leadership. She has also led the development of CanAssist Breast test, the only machine learning-based prognostic test, which is specifically designed for Asian patients. Manjiri has worked on, and has expertise with cellular signal transduction, cancer biology and on human embryonic stem cells and cancer stem cells.

“ Universities Want Disclosure And Development For Public Good And The Ability To License Technology, Implement Nagoya Protocol, And Strategize The Bioeconomy In Japan.”

Mutsuaki Suzuki is the Director of NIG Innovation at National Institute of Genetics, Japan. Prior to NIG, he worked at Fraunhofer Institute in Hannover and as Senior Researcher at JT Inc. Prior to that, he was the Assistant Professor at University of Shizuoka, Japan. He was a Postdoctoral Fellow at University of Texas at Austin and received his Ph.D. from Shizuoka College of Pharmacy. Currently, he is a member of the Intellectual Property Association of Japan, in charge of Life Science Working Group. He is also the Organizer of Industrial-Academia Collaboration WG in Society of Management of Intellectual Property in Japan, and the International Vice Chairman of Association of University of Technology Transfer in Japan.

Mutsuaki established the ABS Task Force Team for Academia to promote academic research using genetic resources and Nagoya Protocol at Universities and Research Institutions. His research expertise extends to the fields of omics, drug discovery using genome medicine and target protein identification, personalized medicine, and bioscience. NIG is responsible for the development of innovative drugs and treatment methods. He led the introduction of research tools such as the AID technology, which can degrade protein rapidly and the microbiome diagnostic system, LEA.



PATRICK TAN

Executive Director

Genome Institute of Singapore



PHILIPPE PINTON

*Medical Affairs Head,
Specialty Therapy*

Takeda Pharmaceutical Co. Ltd.



“Asian Genetic And Phenotypic Diversity Is Severely Under-Studied. Through Our Work, We Hope To Gain Deeper Insights Into Asian-Specific Diseases, Improving Healthcare Outcomes And Catalyzing A New Asian Precision Medicine Industry.”

Professor Patrick Tan is a Professor at the Duke-NUS Medical School and the Executive Director of the Genome Institute of Singapore. He is the Former Executive Director of the Biomedical Research Council (A*STAR). He received the Charles Yanofsky prize for Most Outstanding Graduate Thesis in Physics, Biology or Chemistry at Stanford University. Besides this, he has received numerous awards and recognitions, including the Chen New Investigator Award for Human Genome Organization as well as the Japanese Cancer Association International Award. He is also a member of the American Society for Clinical Investigation (ASCI).

Patrick directs PRISM, the SingHealth Duke-NUS Institute of Precision Medicine. As a Program Director of POLARIS, he led the establishment of the first CAP-certified facilities for next-generation sequencing and the first clinically implemented NGS panel in South East Asia. He led the project, which provided a genetic map of Asian populations, allowing measurement of precise genetic contribution to disease and combining it with other sources of data within a data-driven healthcare system to predict and diagnose diseases and implement therapies to maximize clinical benefit. He also led a team to help understand the molecular basis of fibroadenoma, one of the most common breast tumors diagnosed in women.

“Precision Medicine In Asia Integrates Via Digital Solutions, Platforms, And Patients’ Genetic And Molecular Information To Predict Which Treatment Will Work Best For Specific Patients.”

Philippe Pinton is the Medical Affairs Head for Speciality Therapy at Takeda, Japan. Prior to this role, he was the Executive Medical Director for Takeda in Korea. Before that, he served as the Senior Medical Director – Inflammation and Immunology at Celgene. Before Celgene, he was the Franchise Head – Immunology and Dermatology at Novartis. He has also held Senior positions at Eli Lilly. Overall, he is a seasoned professional in Clinical Development, Registration, Market Access, and Medical Affairs.

During his multiple roles of leadership, he has been responsible for creation, implementation, development, and management of drugs and medical teams, international registrations (FDA, EMEA, PMDA and Asia) and launches, and alliances with Japanese and U.S. companies (Pharmaceutical, Biotechnology, Devices). He played a key role in the release of Takeda’s angiotensin receptor blocker (ARB)-related hypertension drug Edarbi.



RAM LAXMAN

*President and General
Manager, Asia*
10X Genomics



“Partnerships In Genomics Help Expand The Access To Unique Sequencing Technology And Support A Range Of Sequencing Applications In The Human, Animal, Plant And Microbial Research Areas.”

Ram Laxman is the President and General Manager for Asia at 10X Genomics. Prior to 10X Genomics, he was the President and General Manager-Asia Pacific at Pacific Biosciences. Previously, he has held the positions of Vice President Sales and Sales Operation, Asia at Pacific Biosciences and Manager at Illumina. He completed his Ph.D. in Molecular Biology from NUS and Post Doctorate in Structural Biology from University of California, Berkeley.

Ram is responsible for expanding the genomics applications in Asia by providing researchers with access to critical long-range genomic information and gene expression at single cell-resolution. He played a key role in the distribution of microfluidics-based molecular barcoding system, built upon their proprietary GemCode Technology, called the Chromium System in Japan. He played a key role in helping Macrogen penetrate the Korean Array Market for its micro-array and NGS platform, by guiding it to obtain several grants.



**SENTHIL KUMAR
SUNDARAM**

Chief Clinical Officer
Prenetics Ltd.



“Chronic Diseases Are The Major Silent Killers. Precision Medicine Promises To Break This Silence By Making Big Noise About The Developing Diseases So That They Can Be Prevented.”

Senthil Kumar Sundaram is the Chief Clinical Officer at Prenetics. Prior to Prenetics, he was an Associate Professor at Wayne State University. Previously, he also held the positions of Project Director and Academic Senate Member. He is the recipient of the Innovator Award by the Cure Epilepsy Foundation. Senthil’s research articles have been published in reputed, high-impact journals such as Neurology, Annals of Neurology, Cerebral Cortex, and others.

Senthil was the first to discover major copy number variations in Tourette Syndrome. He was also the scientific and clinical architect behind Prenetics CircleDNA product. CircleDNA uses a custom combination of neuroimaging and exome sequencing technology to bring the vast scientific advances in both monogenic and polygenic diseases to promote preventive, precision medicine. At Wayne State, he led a research team as the director of NIH-funded program to investigate genetic causes of developmental disabilities imaging phenotypes.



SIMRANJIT SINGH
CEO
Guardant Health AMEA



“With The Advent Of Precision Medicine, There Has Been An Explosive Growth In The Availability Of Potent Genomically And Immunologically Targeted Agents. Consequently, Tumor Mutation Profiling Of Every Cancer Is Essential. Liquid Biopsies Allow Identification Of Genomic Mutations Driving The Cancer.”

Simranjit Singh is the Chief Executive Officer of Guardant Health AMEA, a joint venture between Guardant Health, Inc. and SoftBank. He is also an active board member of Singapore's National Healthcare Innovation Centre. Prior to Guardant Health AMEA, he was the Vice President of MedTech Asia at IQVIA Asia Pacific. Prior to his role as the VP, he held the positions of General Manager of Medical Devices & Diagnostics Asia as well as Senior Director of Strategic Planning & M&A, Asia Pacific.

At Guardant, he leads comprehensive genomic profiling (liquid biopsy) tests in over 30 different markets across Asia, Middle East, and Africa. The Guardant360 implemented better treatment selection for advanced lung, breast, gastric and colorectal cancers, highly prevalent in Asia. He is focused on conquering cancer using their breakthrough blood-based assays, vast data sets, and advanced analytics. The company is addressing challenges across the cancer care continuum using molecular and digital tools. Known to promote Medtech and BioTech Innovation across Asia, he is also an investor in Holmusk which is building next-generation data analytics platform for Chronic Diseases (NCDs).



SUKANG LEE
CEO
MacroGen, Inc.



“We Will Continue To Improve The Test Kit's Performance To Detect Numerous Mutations Of Coronavirus, Which Continue To Appear In The Future, Along With Promptly Responding To Prolonged Covid-19 And Any New Emerging Infectious Disease Virus.”

Sukang Lee serves as the Chief Executive Officer of MacroGen, Inc. He joined MacroGen as the Chief Operating Officer in 2016. Before joining MacroGen, he held several leadership positions at LG CNS as the Advisor, the VP & Head of IT Research Center Unit, Head of R&D Unit, and the Head of Engineering Service Unit. Prior to LG CNS, he was the Post-Sales Manager at Descartes Systems Group, and the Principal Consultant at SAP Ariba.

Under Sukang's leadership, MacroGen has been constantly pursuing research and innovation in the biotechnology industry. MacroGen is adding clinical diagnosis and personal genomics products. He led the development of MacroGen's Precision Medicine Center network equipped with world-class clinical diagnostic laboratories. They continue to develop and launch clinical diagnostic services based on the latest genomic analysis technologies for cancer diagnoses, and infectious diseases diagnoses, among others. He played a key role in obtaining approval for MacroGen's COVID-19 RT-PCR test kit 'Axen™ COVID-19 RT,' which is able to provide results in two hours.



TAO HUANG

*Associate Professor at
Shanghai Institute of
Nutrition and Health
Chinese Academy of
Sciences*



**VEDAM L.
RAMPRASAD**

CEO

MedGenome Labs Ltd.



“The Accumulated Big Data From Different Areas Will Become The Oil To Drive Precision Medicine Into Unprecedented Applications, Such As Health QR Code In The Covid-19 Pandemic.”

Tao Huang is the Associate Professor, Shanghai Institute of Nutrition and Health, Chinese Academy of Sciences. Prior to this, he was a Postdoctoral Fellow of Genetics and Genomics at Ichan School of Medicine. Before that, he was a Research Assistant at Translational Medicine Group, Shanghai Center for Bioinformatics Technology. He has also served as a Visiting Scientist at the Department of Immunology at University of Rostock and as well as a Visiting Scientist at Department of Genetics at Merck.

Tao is known for his research in bioinformatics, translation medicine, precision medicine, NGS, systems genetics, and big data research. He has over 130 published articles and 7500 citations. He is the editor for the Springer book “Computational Systems Biology: Methods and Protocols, Guest Editor for BBA Molecular Basis of Disease, BBA General Subjects, Artificial Intelligence in Medicine, BioMed Research International, Combinatorial Chemistry & High Throughput Screening, and Computational and Mathematical Methods in Medicine. His development in multi-tissue gene regulation in humans and the paper on Promises and Challenges of Big Data Computing in Health Sciences are highly regarded.

“TB Testing Will Integrate The Spit Seq, The Proprietary Whole Genome Sequencing-Based Test For Diagnosis And Drug Resistance Detection Directly From Sputum Samples And Also Help Us Strengthen Infectious Diseases Testing.”

Vedam L. Ramprasad is the Chief Executive Officer of MedGenome Labs. Prior to his role as the CEO, he served as the Chief Operating Officer at MedGenome in India. He started his career in Genome and Genetics as a Senior Scientist for Molecular Genetics at Vision Research Foundation, Sankara Nethralaya. He later served as the Chief Genomics Scientist at Spinco Biotech and Principal Scientist at SciGenom Labs. He was recently named as Tech 50 Class of 2020 by Entrepreneur India.

Vedam believes in harnessing the power of genomics for providing better outlook to patients. At MedGenome, he has contributed significantly to carving and developing an evidence-based market for genetics in India. He played a pivotal role in launching some of the critical genetic tests in India at affordable price which include the Non-Invasive Pre-natal test (NIPT), carrier screening test, and liquid biopsy, amongst a few. He is regarded instrumental in obtaining CAP accreditation for MedGenome.



WOONG-YANG PARK

CEO
GENINUS, Inc.



“At Geninus, We Do Not Merely Interpret Gene Mutations. We Apply An Artificial Intelligence Learning Algorithm, Substantially Improving The Accuracy Of Diagnosis And Testing.”

Woong-Yang Park is the Director of Samsung Genomic Institute as well as an active Professor at Samsung Medical Center, Korea. He is the current the CEO of GENINUS, a genetic testing company. Prior to Samsung Medical Center (SMC), he was a Professor in Biochemistry at the Seoul National University College of Medicine. He earned his MD and Ph.D. from Seoul National University College of Medicine. He has more than 450 publications in the fields of genomics, cancer, mendelian disease, bioinformatics, NGS, microarray, personalized medicine.

Woong-Yang trained in molecular oncology in Robert Darnell lab in Rockefeller University as a postdoctoral fellow. At Samsung Medical Center, he focuses on clinical genomics to interpret patient genome for personalized healthcare. He also led the research on Personalised Genomic Characterisation of Korean Lung Cancers at SMC. He is regarded highly for application of single-cell RNA sequencing in optimizing a combinatorial therapeutic strategy in metastatic renal cell carcinoma. He also set up a genomics lab to work on Mendelian genomics to understand the pathogenesis of rare diseases at Seoul National University College of Medicine.



YIHAO ZHANG

President & CEO
GE Healthcare China
Co., Ltd.



“Our Vision Of Post-Covid System Encompasses Precise And Personalized Diagnoses And Treatments In The Future. Making Precision Health A Reality Requires Applying Digital Technology, Advanced Analytics, And AI To Major Healthcare Challenges At Every Possible Point Of Delivery.”

Yihao Zhang is the President and CEO of GE Healthcare China (GEHCC). Prior to joining GE, Yihao Zhang was Senior Vice President for Danaher Dental Platform and President for China & APAC, responsible for the overall strategy and performance of three operating companies in China & APAC – Kavo Kerr, Ormco, and Nobel Biocare – leading their R&D and manufacturing efforts.

With expertise in Big Data and Analytics, GEHCC led by Yihao Zhang has cemented his position as a leading global medtech and diagnostics innovator. The company has enabled precision health through digital technology and launched the Edison AI platform, integrating AI, cloud computing, and hospital management, to help professionals make better clinical and operational decisions. Under his leadership, GEHCC also led the development of COVID-19 CT image AI analysis platform LK 2.0 for clinical research to assist on early diagnosis and precise analysis on suspected COVID-19 cases. Under his helm, GEHCC developed ‘CT in a box’ to help hospitals in Wuhan fight against COVID-19, enabling AI-powered automatic positioning and operation to improve diagnosis and treatment efficiency.



YUKARI NISHIKATA

*Head of Oncology
Therapeutic Unit, Japan
and Asia*

**Takeda Pharmaceutical
Co. Ltd.**



“Our Actions Are Consistent With Takeda’s Plan To Become A Top Ten Oncology Company By 2025 By Executing A Disciplined Investment Strategy Focused On High Quality Assets In The Core Therapeutic Areas Of Oncology, GI And CNS And Strengthen Its Position In Japan And The World.”

Yukari Nishikata is the Head of Oncology Therapeutic Unit for Japan and Asia at Takeda Pharmaceutical Company. Prior to her current role, she was the Senior Director, Oncology Drug Development Management Department, Oncology Therapeutic Area Unit, and before that, the Director of Corporate Strategy Development. She has held several leadership roles at Takeda including Senior Director for anti-diabetes and obesity area, along with Director, Strategic Research Planning, Pharmaceutical Research Division.

Yukari was instrumental in Takeda’s acquisition of ARIAD Pharmaceuticals, an oncology-focused biotechnology company with a portfolio of targeted therapies. The acquisition helped Takeda expand into solid tumors and reinforce the existing strength in hematology. Under her, Takeda also collaborated to develop Maverick’s T-cell engagement platform created specifically to improve the utility of T-cell redirection therapy for the treatment of cancer. Yukari is also involved in strategies to target R&D investments in plasma-derived therapies and vaccines.

REPORT METHODOLOGY

CORE COMPONENTS/ PARAMETERS

- Years of experience in precision medicine
- Noteworthy innovations and technological breakthroughs
- Research impact
- Organizational achievements
- Award and recognitions
- Product developments/commercialization
- Publications/citations/media recognitions
- Entrepreneurship achievements
- Policy/Regulation impact

The list of The Top 25 Voices in Precision Medicine Asia, which encompasses a broad area of clinical and experimental fields, is based on the assessment of the aggregate impact score that a person contributes to the advancement of the precision medicine ecosystem in Asia, which primarily includes diagnostics, therapeutics, clinical trials, drug discovery, preventive care, genomics, molecular biology, biomarkers, digital technologies, and other contributing disciplines. To select the Top 25 Voices, this study has used an aggregate impact matrix-based research design, which was most suited to the context of the study (which includes the self- and peer-nominated leaders within the Asian precision medicine ecosystem). The selection of Top 25 Voices using an aggregate impact matrix was based on publicly available data and a balanced scorecard of leaders developed from the nominations filed by themselves and their industry peers.

The research methodology includes eight core components/parameters to build and validate a scorecard matrix. The initial pool of around 180 top candidates has been shortlisted down to the top 25 list following an iterative approach, starting with the evident differentiating parameters mentioned in the adjacent box. Each parameter has been given specific weightage to reduce biasness across ecosystems and areas of expertise. The weights of each parameter have been efficiently assigned to underline major impact and contributions in precision medicine for the initial pool of leaders.

Data sources: A comprehensive secondary research has been conducted to collect information for all top 180 candidates, keeping a major focus on the eight parameters described for shortlisting criteria. The data has been collected from the self/peer nominations and publicly available sources including company websites, university portals, precision medicine conferences, PubMed library, Google Scholar, News and Media reports, LinkedIn, public awards, research articles, press releases, internal database, and other text resources. Besides external public data sources, the project team also worked in coordination with subject matter experts within BIS Research and external pool of consultants to analyze the collected data and provide their recommendations on the shortlisted candidates. A sector-level analysis also included a detailed review of top leaders in respective sectors, including diagnostics, therapeutics, digital technologies, and applied sciences.

PM Ecosystem

Identify and Split the PM Ecosystem into 4 Main Domains

Applied Sciences

- Multi-Omics
- Biomarker Science
- Molecular Science
- System Biology
- Synthetic Biology
- Genome Editing

Therapeutics

- Targeted Therapy
- Cell Therapy
- Gene Therapy
- Drug Discovery
- Clinical Trails

Diagnostics

- Companion Diagnostics
- Genetic Testing
- Liquid Biopsy
- Molecular Diagnostics
- Complementary Diagnostics

Digital Technology

- Genomics Informatics
- High Performance Computation
- AI and Blockchain
- Big Data and Analytics
- External Devices
- Hospital Informatics
- Medical Records
- Population Health

Sector

Identify leaders from all sectors across the PM Ecosystem based on Self/Peer nomination and Publically available data

Industry

Academia & Research

Providers & Policy Makers

Scoring

Aggregate impact score calculation for All Leaders

Leader	Exp_S	Pat_S	Pub_S	Pro_S
A Leader	5	5	15	10
B Leader	3	20	5	10
C Leader	5	5	15	5
D Leader	5			10
E Leader	5	10	2	10
F Leader	1	3	10	5
G Leader	5	3	2	10
H Leader	1	4	2	10
I Leader	3	5	2	5
J Leader	1	5	15	8
K Leader	3	5	2	5
L Leader	1		2	5
M Leader	3	6	7	10
N Leader	3			10
O Leader	1	6	2	5
P Leader	3			5
Q Leader	1	10	8	5
R Leader	5	10	2	10
S Leader	1	3	10	5
T Leader	5	6	2	10
U Leader	5	5	15	5
V Leader			5	10
W Leader	5	10	2	10
X Leader	1	3	10	5
Y Leader	5	5	15	5
Z Leader	5	10	2	10

Note: The above figure is only for representation purpose.

DISCLAIMER

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Nitish Kumar, Principal Analyst, Precision Medicine, BIS Research

ABOUT INSIGHT MONK

InsightMonk, the global deep-technology ecosystem, helps businesses and individuals accelerate technology discovery, business evaluation, and innovation planning. The ecosystem empowers enterprises, startups, and individuals to improve their deep-tech research capabilities by offering crowdsourced innovative thinking and solutions from the world's smartest individuals in a timely, cost-effective, and secure manner. It also gives the expert a valuable opportunity to contribute to path-breaking projects, impact the future of society, grow their market equity, and gain extra rewards for their expertise.

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We crowdsource and curate reports, directly from industry experts: the people working in labs or building businesses around these technologies.

Our in-depth market intelligence reports focus on the market estimations, technology analysis, emerging high-growth applications, deeply-segmented granular country-level market data, and other important market parameters useful in the strategic decision-making for senior management.

THE TOP 25 VOICES IN PRECISION MEDICINE ASIA

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