

# DXRX – The Diagnostic Network®

Delivering seamless diagnostic testing for Precision Medicines



**DXRX**

The Diagnostic Network®

by

**Diaceutics**

Better Testing, Better Treatment

# Discover DXRX – The Diagnostic Network®

Imagine a vibrant marketplace where all stakeholders in Precision Medicine come to find trusted partners and collaborations in a secure, standardized way

With access to a pipeline of global diagnostic testing data on one secure platform

DXRX is an end-to-end solution for the development and commercialization of precision medicine diagnostics., from biomarker discovery to in-market test availability

Learn how the DXRX Network can enable your teams to:

- **Achieve superior therapy access** by outsourcing your **end-to-end diagnostic development and commercialization needs**
- **Reduce time to market** by working with the **best-in-class diagnostic testing partners** selected from a global network
- Stay **agile and informed** to **enhance, maintain and monitor test quality** using intuitive digital dashboards
- Identify **key performance indicators** and measure success of **multiple brands simultaneously**

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# Our Expertise

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**Our mission is to get every patient the treatment they deserve**

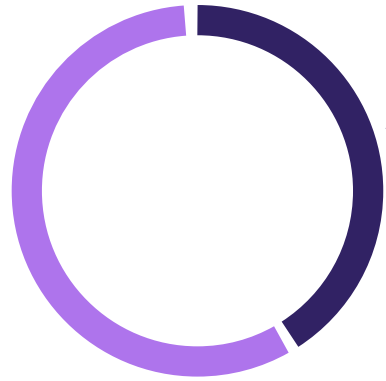
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- Diaceutics is a data analytics and end-to-end services provider
- We are enabled by DXRX – the world's first Diagnostic Network solution for the development and commercialization of Precision Medicine diagnostics
- We have worked on every Precision Medicine brought to market
- We are trusted by 36 of the world's leading pharma companies

**We understand the real-world challenges faced by labs every day**



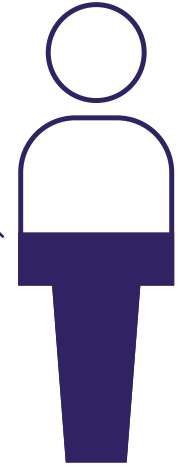
# The Growing Challenge And Potential Of Precision Medicine



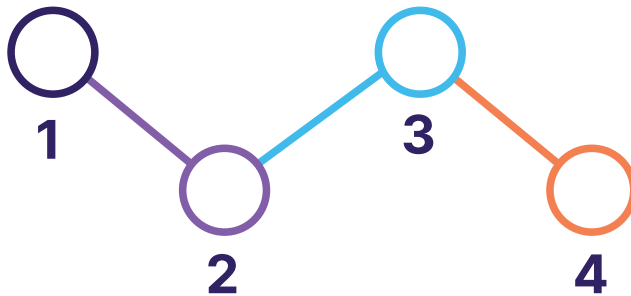
**40%** of all FDA approvals in 2018 were for Precision Medicines with 1000 potential therapies in late phase of development

**Up to 50%**

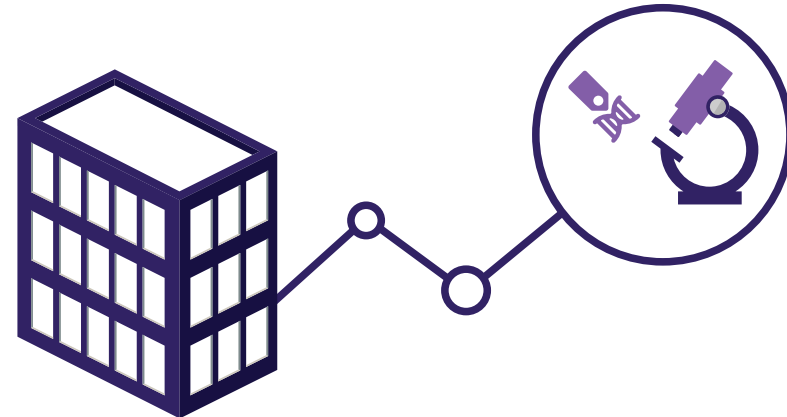
of eligible patients don't get access to a Precision Medicine due to testing hurdles



It takes up to **4.5 years** for a biomarker test to be developed

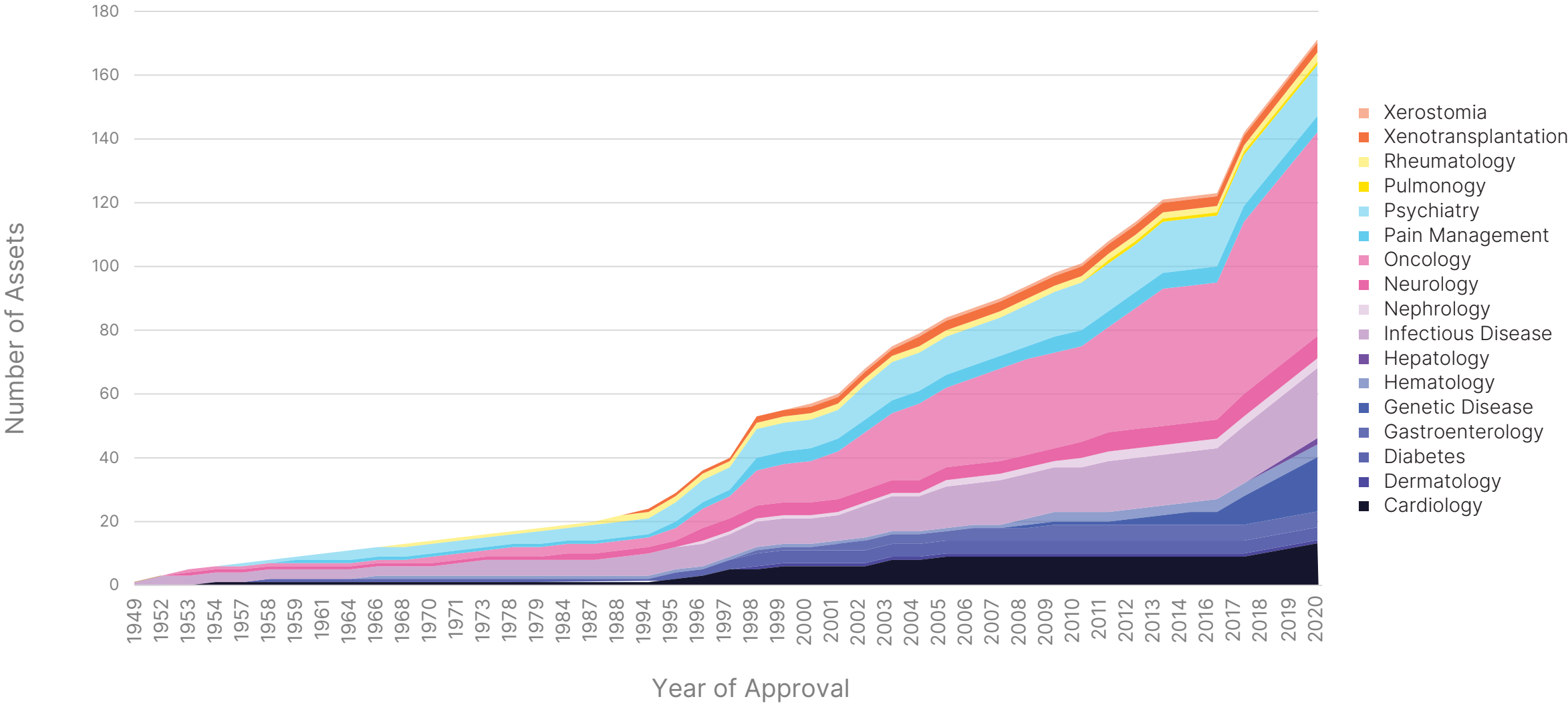


It takes up to **3 years for over 70% of labs** to get ready to offer a new biomarker test



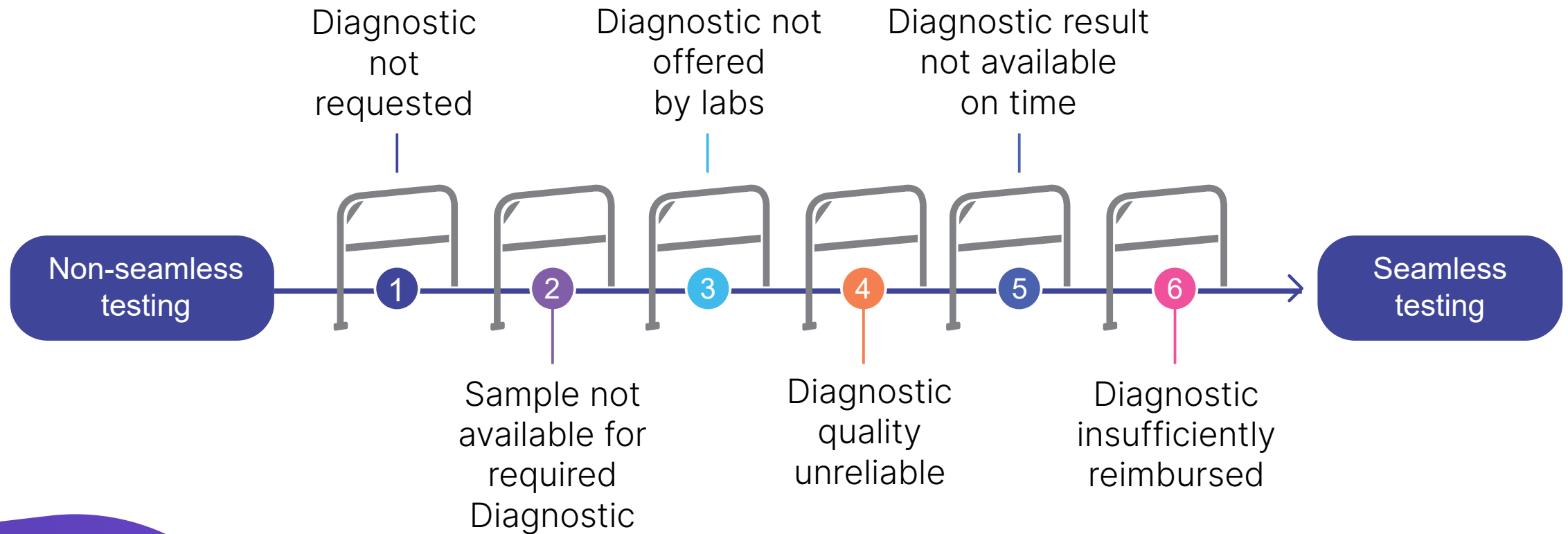
# The Growing Challenge And Potential Of Precision Medicine

Precision Medicine asset approvals over time (cumulative) in the US by the end of 2018



# Solving An Industry Challenge

## The 6 Barriers to Diagnostic Adoption Causing Patients to Be Missed



# Solving an Industry Challenge

## Case study: NSCLC testing and treatment landscape

Testing, Treatment and Data Analysis are all advancing in Non-Small-Cell Lung Cancer. [The Diagnostics 2020 Precision Medicine Report](#) analyses real-world hurdles in the NSCLC diagnostic landscape and explores an industry-wide solution to address an ecosystem which is under-delivering for patients.



~**80%** of PM educational investment by pharma is spent on the predictive biomarker phase



Today, Lab-developed tests comprise between **40% - 70%** of NSCLC testing



Today it can take up to **4.5 years** for a biomarker to reach an 80% testing rate among patients



Up to **50%** of eligible patients don't get access to a Precision Medicine due to hurdles in the ecosystem



Up to **30%** of the value of a PM treatment is delivered by the diagnostic test



The NSCLC testing market is predicted to grow in value from **\$5.3 to \$7.4bn** by 2025





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*“Given the richness of the data we have, Diaceutics has been uniquely positioned to identify that, as an industry, we have been getting it wrong when it comes to patient testing for precision medicines.*

*We believe that DXRX is the solution.”*

Derek Hosty,  
Head of Innovation,  
Diaceutics

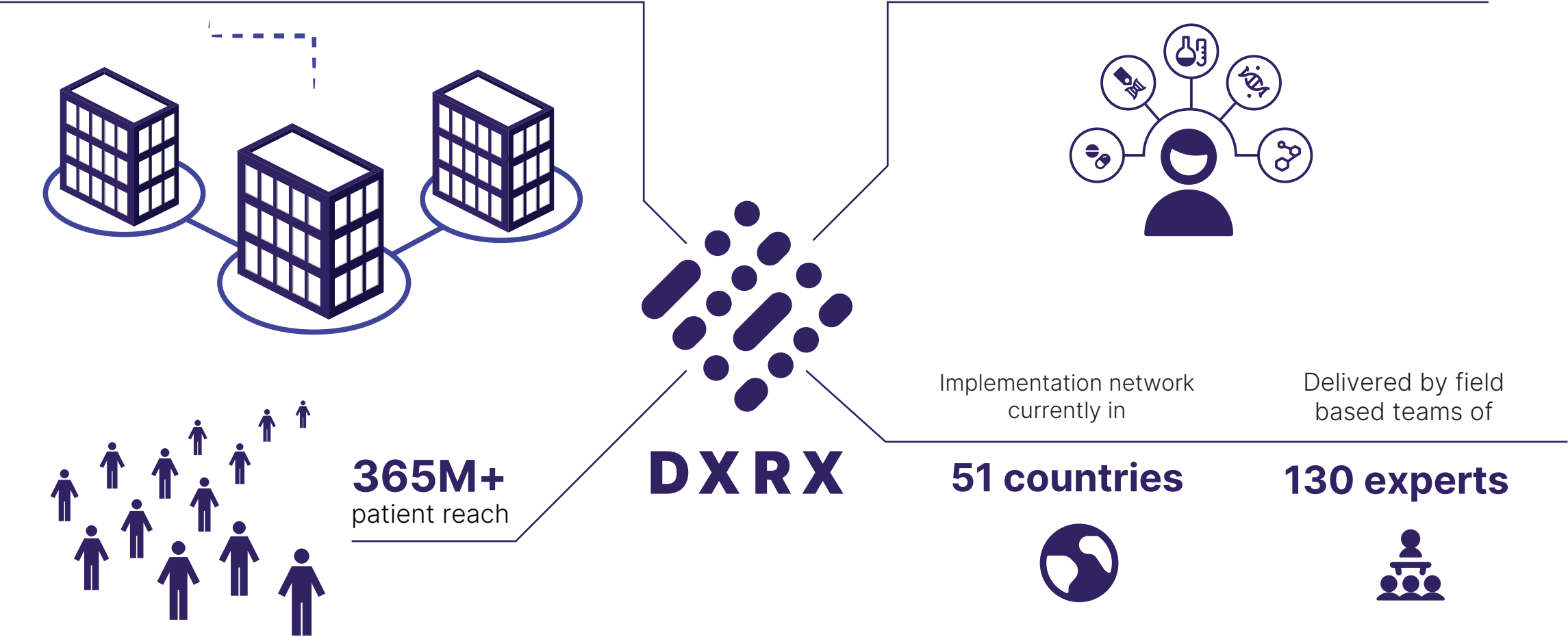


# DXRX - The Diagnostic Network<sup>®</sup>

Leverage the **world's first diagnostic network** for Precision Medicine

The world's largest global flow of diagnostic testing data integrating **2500+** laboratories into one secure network

Industry experience from working on every precision medicine brought to market

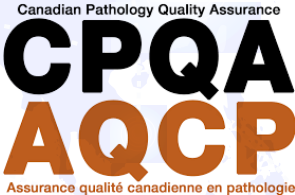


# Recent Network Partnerships

UK NEQAS



Quality in Control



# Collaborate with a global panel of industry KOLs in Precision Medicine diagnostics



Dr Anthony Magliocco,  
CEO,  
Protean BioDiagnostics Inc.,  
US



Markus Eckstein,  
MD,  
University Hospital Erlangen,  
Germany



Kenneth J. Bloom,  
CMO,  
Invicro and Ambry  
Genetics,  
US



Keith Kerr,  
Professor and Consultant  
Pathologist,  
Aberdeen University School  
of Medicine,  
Scotland



Dr Fotios Loupakis,  
Medical Oncologist,  
Institute of Oncology at Veneto,  
Italy

# Features and Benefits







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## **Achieve superior therapy access by outsourcing your end-to-end diagnostic development and commercialization needs**

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DXRX is an end-to-end solution which enables you to outsource your needs from biomarker discovery right through to in-market availability of a test

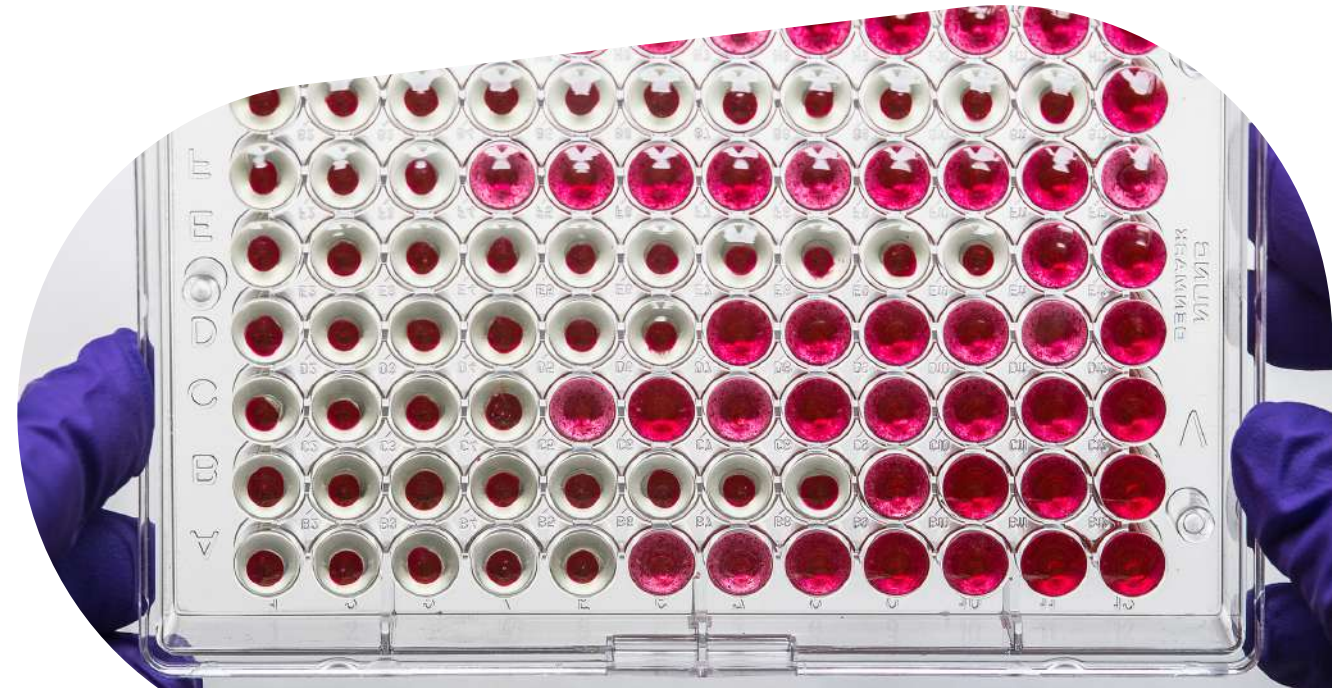
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## **The new industry standard for selecting diagnostic testing partners using a standardized, streamlined process**

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Post new biomarker opportunities on DXRX marketplace and find the right partners in a standardized, streamlined way. DXRX will shortlist partners based on real world information from labs, such as testing output, turnaround time, technology capabilities and clinician mix to recommend best-in-class partners for your needs.

- Marketplace Collaborations
- Lab Mapping





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## **Reduce time to market by working with the best-in-class diagnostic testing partners**

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DXRX enables precision medicines to be brought to the market earlier in their lifecycle by collaborating with appropriate partners to get the right tests developed, approved and implemented in the clinical setting across multiple markets

- Lab Mapping
- Marketplace Collaborations
- Implementation Services
- DXRX Network

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## **Achieve peak therapy prescription numbers by removing testing hurdles for your precision medicine launch**

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We can help you remove barriers to testing adoption in local markets such as regulatory, reimbursement and standardization to achieve peak therapy prescription rates as soon as possible in your treatment's lifecycle.

- Lab Mapping
- Physician Mapping (US only)
- Marketplace Collaborations
- Implementation Services
- DXRX Network







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## **Increase your global market share through access to a broad network of local partnership opportunities**

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On the ground implementation of your diagnostic testing strategy to overcome local and regional restrictions using DXRX field-based teams of 130 experts in 20 countries

- Testing Dashboard
- Marketplace Collaborations
- Implementation Services
- DXRX Network

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## **Stay agile and informed to enhance, maintain and monitor test quality using intuitive digital dashboards**

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Access real world diagnostic testing data from 2500+ labs in 51 countries to track 52 key success metrics for multiple brands, with out of the box data visualizations and intuitive dashboards

- Lab Mapping
- Physician Mapping (US only)
- Testing Dashboard
- Collaboration Management





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## Identify key performance indicators and measure success of multiple brands simultaneously

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Access real world diagnostic testing data from 2500+ labs in 51 countries to track 52 key success metrics for multiple brands, with out of the box data visualizations and intuitive digital dashboards

- Lab Mapping
- Physician Mapping (US only)
- Testing Dashboard

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## Understand and optimize for physician behaviour and preferences to inform better treatment decisions

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Our world-class data repository and analytical tools can help you understand how the most influential physicians make testing and treatment decisions for your disease or treatment type, as well as providing actionable data such testing rates, and which labs they use.

- Physician Mapping (US only)
- DXRX Network



# Solutions and Services



# Discover DXRX Marketplace

DXRX enables a vibrant marketplace where all stakeholders in Precision Medicine come to find trusted partners for collaboration on precision medicine diagnostics in a secure, standardized way





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*“I am honored to be part of what is very much an unprecedented approach to bringing stakeholders on to one secure platform to collaborate around diagnostic testing.*

*I see there being a huge appetite for this technology not only with pharma, labs and diagnostic companies but also with clinicians and any service provider involved in the process of getting patients treated.”*

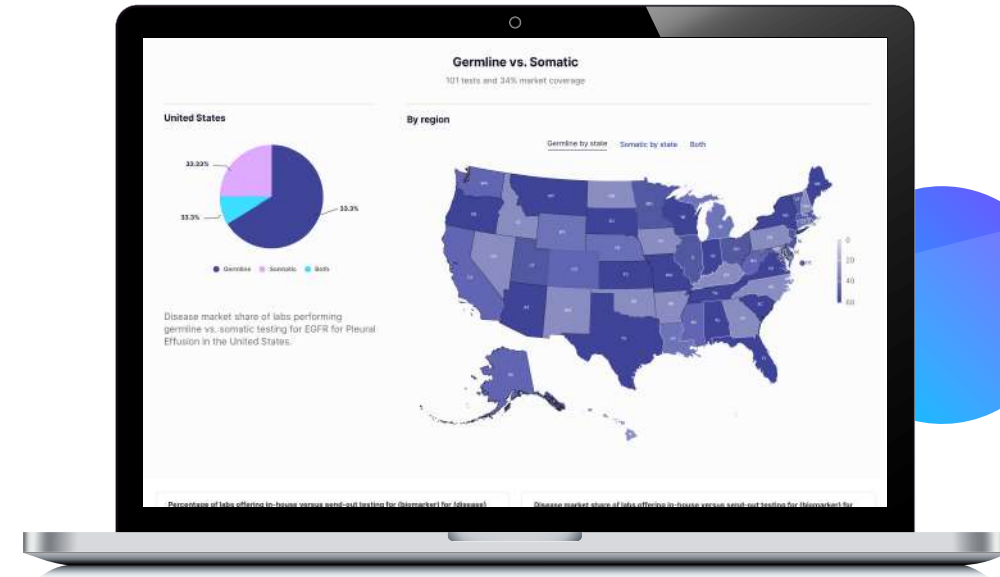
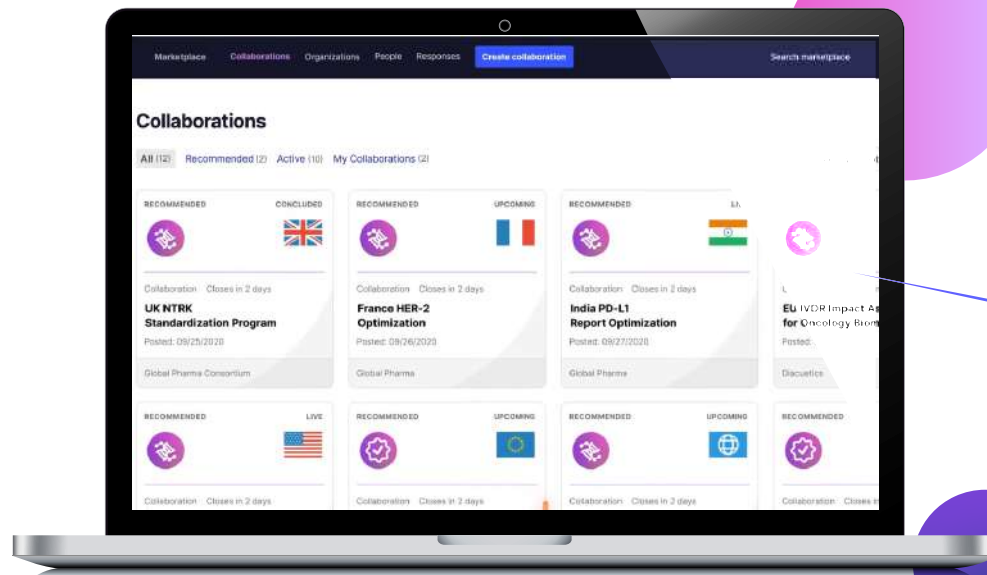
Kenneth J. Bloom,  
CMO, Invicro and Ambry Genetics,  
DXRX Network Advisor,  
US



# Marketplace Collaborations

A DXRX collaboration is an opportunity for multiple stakeholders to work together to solve real-world testing challenges ensuring every patient gets the treatment they deserve

- Announce availability of your new therapy
- Select best in class diagnostic testing partners to execute your strategy at local and global level
- Engage with your target labs using customised implementation services to guarantee superior test adoption



Discover live DXRX collaborations [here](#)





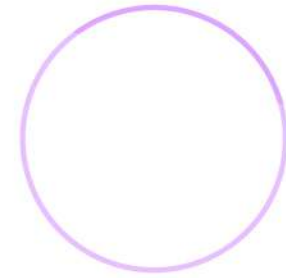
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*“The era of launching a therapy with a single companion diagnostic partner is behind us. We need to consider the global needs of our patients and the regional restrictions commonly faced. This calls for pharma to think beyond a one-size-fits-all approach and embrace the democratisation of testing.”*

Peter Keeling,  
Chief Executive Officer,  
Diaceutics

# Global Implementation Services

DXRX is a global implementation network designed to execute development and commercialization strategies at local level



# Global Implementation Services

DXRX is a global implementation network designed to execute your strategy at local level

Implementation services are currently available in 51 countries



# Test Standardization

Out of the box control materials provided to labs to reduce the time, hassle and cost associated with the adoption of a biomarker test. Enabled by the industry's leading providers in global test standardization.

- Everything the lab requires to prepare earlier for a new biomarker test coming to market
- Delivery of hands on standardization support from DXRX Network experts
- Ensures standardized approach to testing regardless of test modality selected by lab
- Reduces the lag time from drug launch to in market availability of standardized testing

*"Since 2005, Targos is vigorously pursuing a high level of international standardization for biomarker analysis. An important part of this has become the Targos Advance Expert Training program, which has been performed for more than 4,000 pathologists. We are excited to join Diaceutics in its effort to realize the full potential of precision medicine through standardization and training."*

Gudrun Baenfer,  
Head of Advance Training & Consulting Division,  
Targos Molecular Pathology





*"EMQN CIC and Diaceutics have a shared vision on improving the quality and accuracy of testing to ensure all patients get access, where possible, to the most effective treatments. We are delighted to be offering our ISO 17043 accredited Oncogene panel testing EQA scheme through the DXRX platform to support these goals."*

Simon Patton, Managing Director, EMQN CIC

## Test Quality Assessment

Accredited EQA training and assessment for labs to maintain superior testing quality at critical stages throughout test development and commercialization. Enabled by industry leading EQA providers globally.

- Standardized quality approach in labs across multiple markets
- Enables provision of EQA/PT services in advance of new biomarker launches
- Hands on support for labs as they are validating/verifying a new assay



## Laboratory Tech Support

**Hands on troubleshooting and technical support designed to solve specific testing challenges in labs performing biomarker testing.**

- Provide enhanced support mechanisms to the laboratories performing biomarker testing for your therapy brands
- Technical support for laboratories as they are validating/verifying a new assay
- Technical support for labs not covered by your chosen diagnostic partner



## Test Report Optimization

**In-lab support provided by DXRX Network experts to optimize biomarker test reporting informing appropriate therapeutic decisions by physicians**

- Enable physicians to better understand the results provided in a biomarker test report such as NGS test report
- Ensure physicians are informed on biomarker to therapy linkage
- Provide education and awareness of testing through test report optimization





## Test Access and Reimbursement

### A mechanism to support biomarker testing access through pharma sponsored reimbursement programmes

- Provide financial support to labs to enable the provision of biomarker testing for your therapy
- Access best-in-class analytics on tests being provided by your labs
- Leverage a secure digital platform for the ordinary reporting of testing



## Laboratory Training

**In-lab training and coaching services tailored to specific biomarker testing needs. Implemented by DXRX Network pathology experts in 51 countries globally.**

- Troubleshooting and training provided according to the support needs of the lab
- Enables labs to maintain a best-in-class workforce through CPD and support services
- Delivered by DXRX Network accredited training providers



# Educational Resources

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**Educational content created by domain experts tailored to labs and pathologists providing the information needed to maintain quality testing**

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- Content created and delivered by lab professionals for lab professionals
- Resources delivered digitally or in-lab as required for your labs
- Leverage robust experience in pharma compliance to inform laboratory education







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*“The precision medicine market is growing rapidly. Approximately 1,000 precision medicine drugs are currently in development and our research shows that by next year, the FDA will be approving more personalized oncology drugs than one-size-fits-all treatments.*

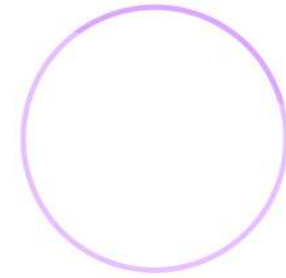
*“As they shift towards a personalized approach to treating patients, pharmaceutical companies must ensure that they are employing the correct solutions and services to reach every patient eligible for their treatments. Greater transparency and standardization of real-world testing practices on a global scale are key enablers in that testing and treatment journey. “*

Karina Hjort,  
Senior Director, Innovation,  
Diaceutics

# Discover the Data

DXRX integrates a global flow of diagnostic testing data into one secure platform

The network has been purpose built to provide unrivalled access to rich data analytics for all stakeholders in precision medicine



## DXRX Data

DXRX provides access to the worlds largest diagnostic testing data repository combining multiple sources of information to build a complete picture of a patient's diagnostic journey.

Our lab-derived data is enhanced with diagnostic, claims, registry and demographic data. Every diagnostic event within the data repository has been labelled by our team of clinical experts, this is particularly required for the lab data which is inherently lacking standardization.

Expert data labeling allows for seamless integration across datasets and enables Diaceutics to use innovative algorithms to derive insights.



**365 million**  
de-identified patient records



**2500+**  
Laboratories globally



**35**  
countries



**Average 4.3 years'**  
longitudinal history



**670,000**  
referring physicians



**9,500**  
payors globally



**47**  
disease diagnostic  
pathways mapped (DDP)



Data available from  
**2011**



# Data Protection, Security and Compliance

Data protection is extremely important to Diaceutics and we always aim to provide clear and transparent information about how its use Personal Data.

Diaceutics' aim is not to be intrusive, but to provide genuine collaboration opportunities for all stakeholders to work together to solve real-world testing challenges, ensuring every patient gets the treatment they deserve. Diaceutics have robust measures and procedures in place to minimize the risk of unauthorized access to the DXRX Platform and to keep it secure.



**DXRX is hosted on secure and scalable AWS (Amazon Web Services) infrastructure.**

**It has been security tested by third party cyber security experts to ensure best practices are adopted and known vulnerabilities are addressed.**

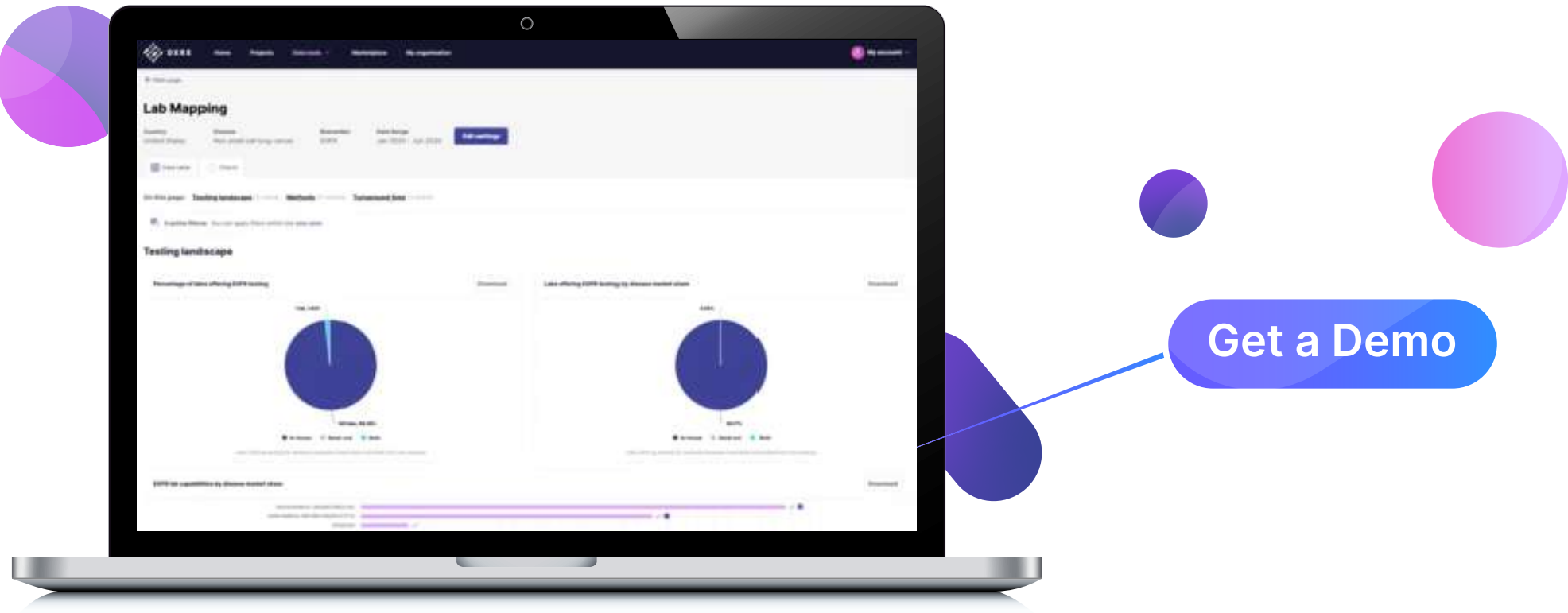
**DXRX has been privacy assessed by our Legal team to ensure compliance with applicable laws and regulations on data privacy and security.**

# Lab Mapping

Maximise access to your therapy by identifying which labs are testing for your biomarker in your target market

Increase access to your therapy by identifying additional labs that could support testing for your biomarker in your target market

Understand the current landscape and monitor the evolving nature of diagnostic testing to inform robust strategic decisions

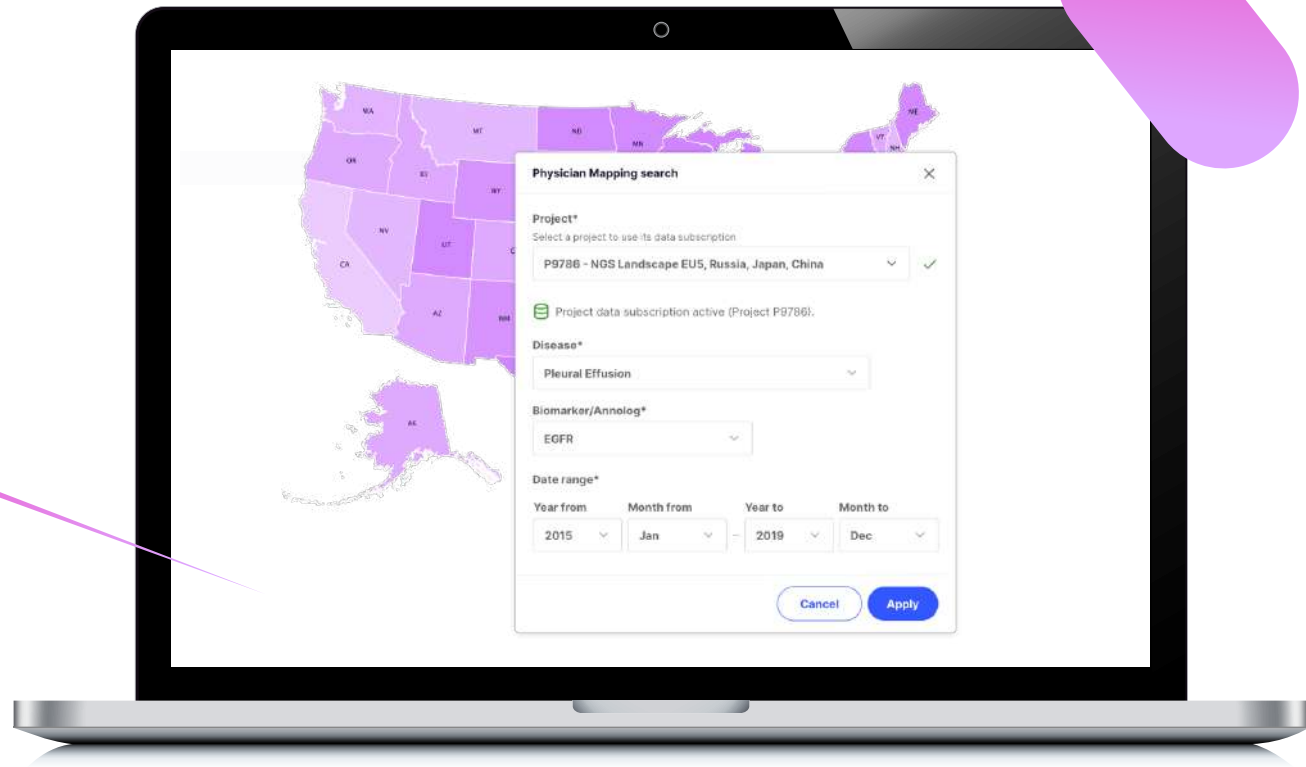


# Physician Mapping

Maximise access to your therapy by profiling and targeting physicians testing for your disease.

Our world-class data repository and analytical tools can help you understand how the most influential physicians make testing and treatment decisions for your disease or treatment type, as well as providing actionable data such testing rates, and which labs they use.

Get a Demo



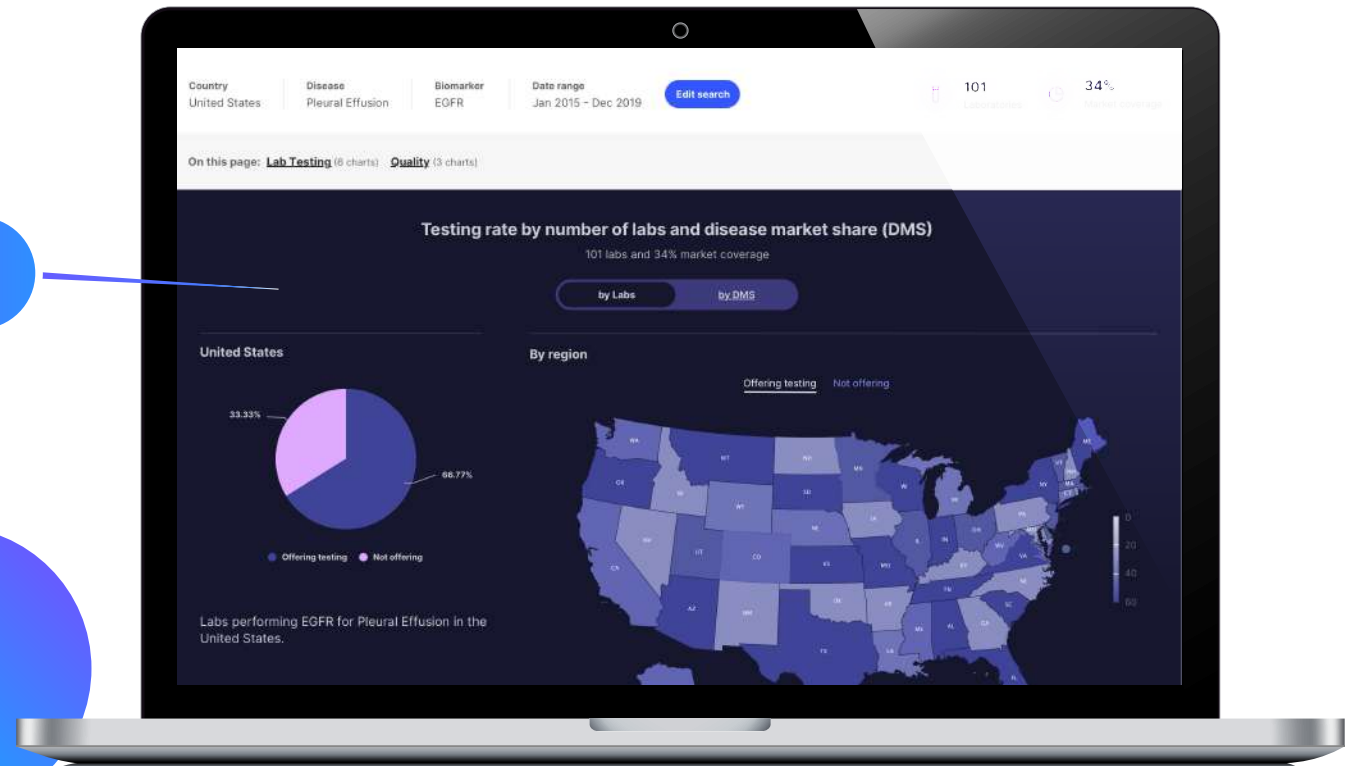
# Testing Dashboard

Track 52 key success metrics for multiple brands, with out of the box data visualizations and intuitive dashboards

Stay agile and informed to enhance, maintain and monitor test quality using intuitive digital dashboards

Identify key performance indicators and measure success of multiple brands simultaneously

Get a Demo



# Consulting Services

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## Maintain competitive advantage in a rapidly changing industry

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- Diaceutics collaborates with leaders across the industry to help identify and execute successful strategies for future growth.
- From defining actionable enterprise, business unit and digital strategies to vetting commercialization and tactical plans, our life sciences experts help you align priorities, investments and processes to drive sustainable performance.

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## Mitigate risk before it arrives to drive long term value across your enterprise

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- Diaceutics Consulting partners with leaders in business and society to solve challenges affecting therapy success at regional and global level. Our experts specialize in risk mitigation, organizational readiness and the delivery of long-term value across the enterprise







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*"Our Experts have worked on every precision medicine brought to market which places Diaceutics in a unique position to guide innovative pharmaceutical companies in the integration of best in class precision medicine diagnostics into their business model.*

*We combine global expertise and local insight to help our partners turn bold vision into long term value."*

Susanne Munksted,  
Chief Precision Officer,  
Diaceutics

## Learn More

Talk to us about your diagnostic development and commercialization needs now at [marketing@diaceutics.com](mailto:marketing@diaceutics.com)

