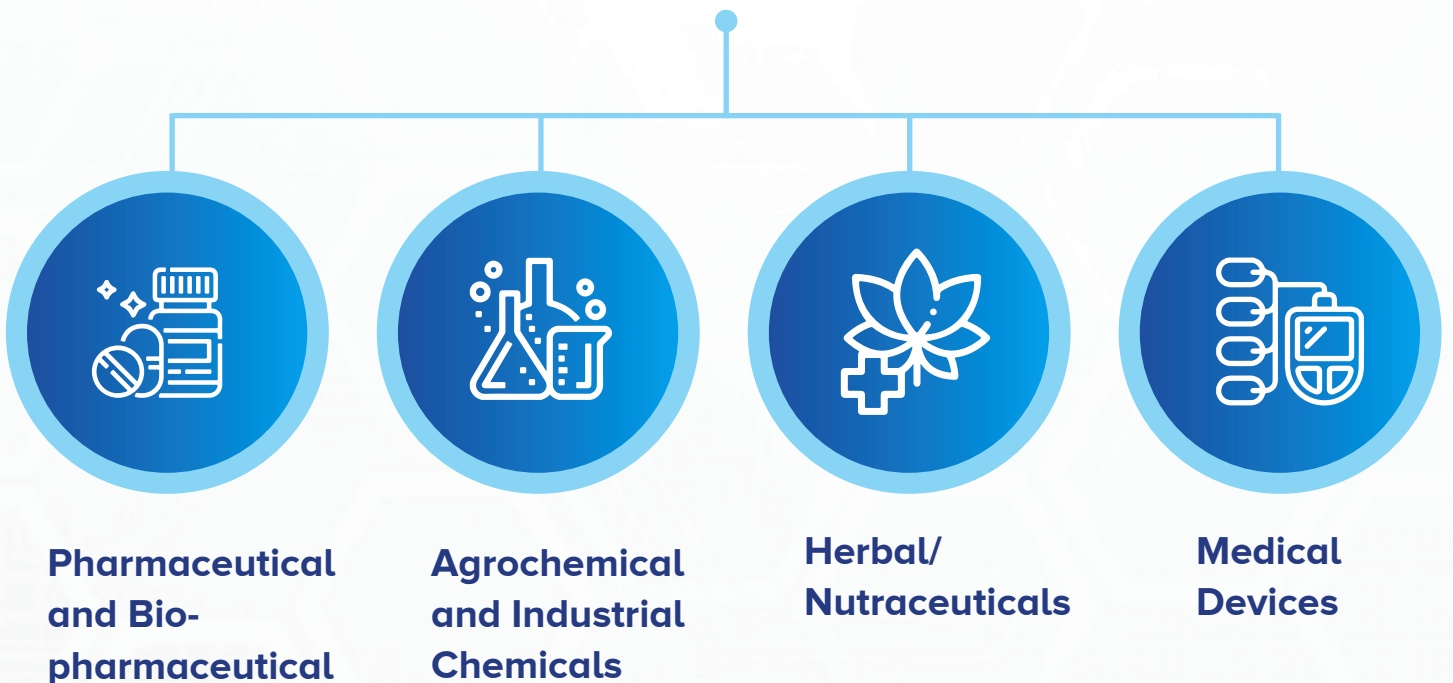


# Accelerating End to End Development of Large Molecules & Biosimilars

# Veeda Group Overview

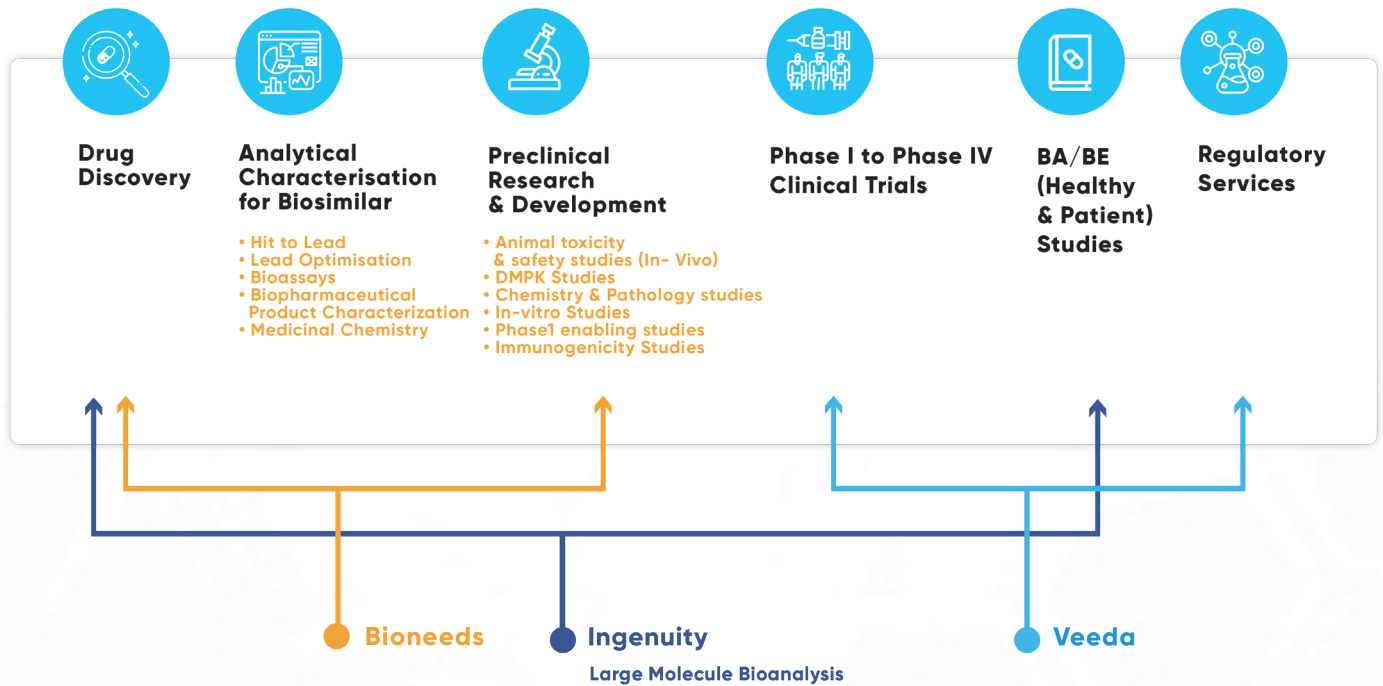
Veeda Clinical Research Limited (“Veeda”) together with its subsidiary, Bioneds India Private Limited (“Bioneds”), and its joint venture, Ingenuity BioSciences Private Limited (“Ingenuity”), (together referred to as the “Veeda Group”) offers a comprehensive portfolio of clinical, preclinical and bio/analytical services to support innovator, biosimilar and generic drug development programs of our global clientele. We are an independent, institutional investors owned, Board governed and professionally managed contract research group offering scientific leadership, global quality management systems and long term operational and financial stability through a continuing investment in our people, processes, systems, infrastructure and technology and a deep commitment to quality.

## Together, we serve clients globally in the following industries



The group entities offers distinct services, both as independent modules as well as integrated services

# Assisting you the right way in your entire Drug Development Journey



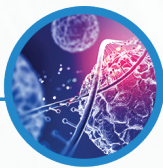
# Quality driven, responsive partner with deep scientific and regulatory expertise in the area of Large Molecule Bioanalysis (including Vaccine)

**Ingenuity BioSciences** is a joint venture formed by Veeda Clinical Research and Somru BioScience, combining the best of each parent organizations clinical trials and laboratory services capabilities

## Our Footprint

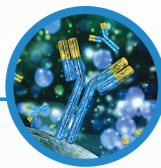


## Our Services and Capabilities



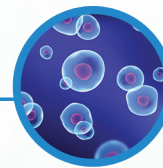
### PK

- Biosimilar
- Biologics
- Cell and Gene Therapy



### Immunogenicity

- ELISA
- Cell-based Nab
- ELISpot



### Biomarker

- Gene Expression
- Protein Expression
- Cellular Profiling
- Cell-based Functional

Multidimensional understanding of the disease biology



Disease etiology/ pathogenesis



Unbiased clinical outcome

# Advanced Analysis of Biosimilars with Proven Expertise

## In-depth Expertise

- Approximately 122 validated methods supporting 70 biosimilar/bio-better molecules

- US FDA, EMA and Health Canada

## Global Regulatory Landscape Experience

## Key Milestones - 2022

- New Laboratory with Cell-based Assay Capabilities
- Implementation of MSD platform
- Automation

## Cell and Gene Therapy

### Immunology Assays



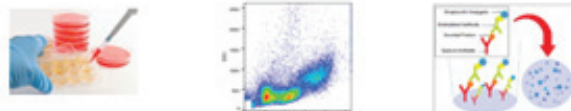
#### ELISA/ Amplatto™

#### MSD

- Anti Drug Antibodies (ADA) – viral and transgene
- Protein expression measurement

- Cytokine release assay

### Cellular/ Functional Assays



#### Cell Based Assays

#### Flow Cytometry

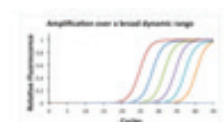
#### ELISpot

- Neutralizing antibody assays

- CAR expression on cell surface
- Quantitation of CAR positive T-cells

- CD4 and CD8 specific T-cell responses
- PD biomarker

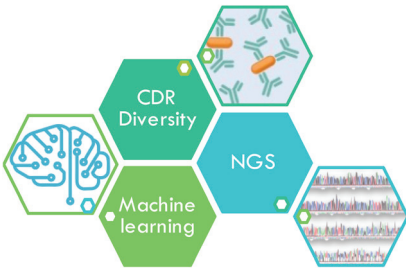
### Molecular Biology Assays



#### qPCR

- Pharmacokinetic
- Biodistribution and shedding
- Vector and transgene

# Innovative Technologies to Support Bioanalysis

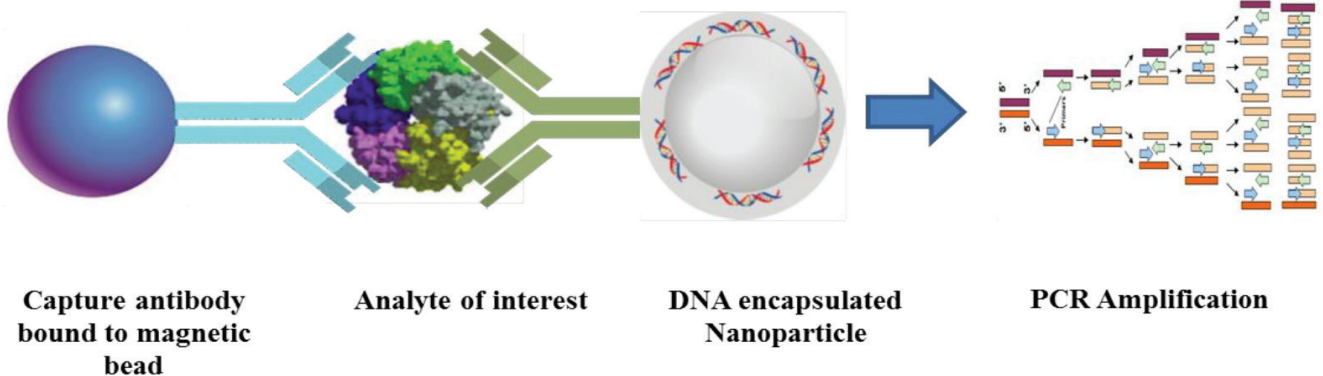


## mAbY™

- Recombinant antibody discovery platform
- Discover rare and novel antibodies
- Faster discovery
- High-throughput repertoire mining
- Rational antibody design

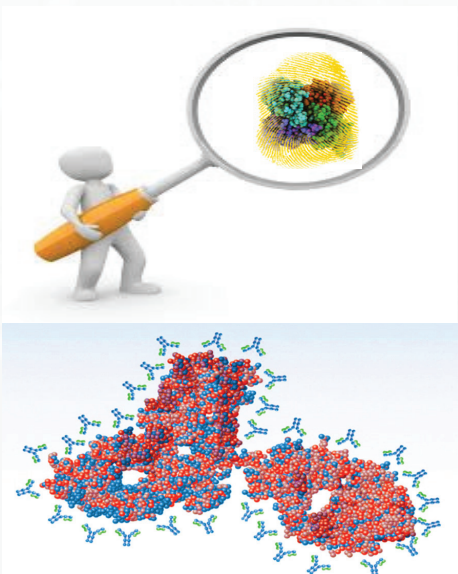
## Amplatto™ - Ultrasensitive Immuno-PCR platform

- Combines traditional immunoPCR workflow with proprietary nanoparticle technology to enable the detection of analyte with unparalleled sensitivity and accuracy

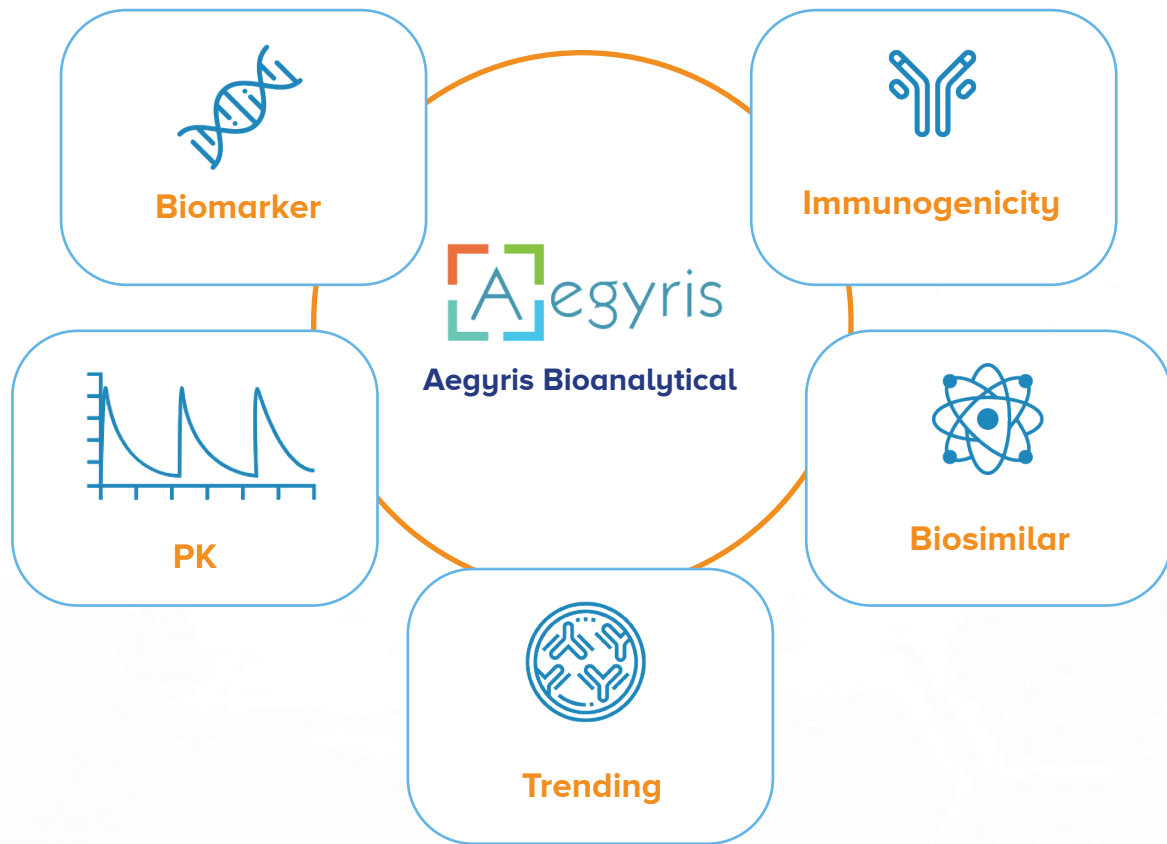


## Intelli.b™ - Biosimilar Characterization Solutions

- Platform based on more than 1000 antibodies generated against various innovator drugs
- The antibodies bind to innovator and biosimilar products in an ELISA based system to generate “meaningful finger-print-like analysis”
- This fingerprint is supported by an intelligent library to generate meaningful and actionable interpretation



# Cutting edge cloud-based Aegyris™ that can save up to 70% of time and costs in method validation support activities



# Our Infrastructure Capabilities

## Equipment and Software

- Microplate reader
- Microplate washer
- BOD incubator
- Deep Freezer (-20°C ± 5°C)
- Refrigerator
- Aegyris™

## Critical Instruments and Monitoring

- BD FACSLyric Flow cytometer
- Shimadzu Nexera UHPLC and HPLC
- Q Exactive Orbitrap Mass Spectrometer -LC-MS/MS
- ICP-MS
- 2D Electrophoresis- BioRad
- Plate Readers Softmax Pro and Biotek
- Real time PCR- Thermo Fisher
- Bioreactors (5 lts)
- Ekta Purification system
- Gas Chromatography
- Stability Chambers

## LC MS Capabilities

- Q Exactive Orbitrap Mass Spectrometer
- UHPLC – Front End
- Software components
  - Xcalibur 4.0.2719 (Thermo Fisher Scientific Inc.)
  - Biopharma Finder 2.0 Data Analysis Software





# Simplifying Immunogenicity Assessment of Biotherapeutic Products - Validated PK & ADA Methods List

## PK METHODS

Abatacept (Orencia®)	Human Insulin
Abciximab (Reopro®)	Ibritumomab tiuxetan (Zevalin®)
Adalimumab (Humira®)	IGF-1 (Increlex®)
Aflibercept (Eylea®)	Imiglucerase (Cerezyme®)
Alemtuzumab (Campath®)	Infliximab (Remicade®)
Basiliximab (Sumulect®)	Insulin Aspart (Novolog®)
Bevacizumab (Avastin®)	Interferon beta-1a
C1-inhibitor (Berinert®)	Ipilimumab (Yervoy®)
Certolizumab pegol (Cimzia®)	mPEG
Cetuximab (Erbix®)	Muromonab-CD3 (Orthoclone OKT3)
Copaxone	Nivolumab (Opdivo®)
Daclizumab (Zenpax®)	Obinutuzumab (GAZYVA®)
Darbepoetin Alpha	Octreotide
Denosumab	Ofatumumab (Arzerra®, HuMax-CD20)
Eculizumab(Soliris®)	Omalizumab (Xolair®)
Efalizumab (Raptiva®)	Palivizumab (Synagis®)
Erythropoietin (Epogen®)	Panitumumab(Vectibix®)
Etanercept (Enbrel®)	Pegfilgrastim (Neulasta®)
Etanercept (Enbrel®) FREE	Pegylated Proteins
Exendin-4 (Exenatide®)	Pembrolizumab (Keytruda®)
Factor VIII	Pertuzumab (Perjeta®)
Filgrastim (Neupogen®)	PTH (1-34) – Teriparatide
Folicle Stimulating Hormone	Ranibizumab(Lucentis®)
Gemtuzumab ozogamicin (Mylotarg®)	Recombinant Human Hyaluronidase (rhuPH20®)
Glargine (Lantus®)	Rituximab (Rituxan®)
Glargine (Lantus®) solution phase	Sargramostim (Leukine®)
Glucagon (GlucaGen®)	Secukinumab (Cosentyx)
Growth Hormone Releasing	Tositumomab (Bexxar®)
Hepatitis B Immune Globulin (HepaGam B®)	Trastuzumab (Herceptin®)
Hormone (Sermorelin®)	Vedolizumab (Entyvio®)

## ADA METHODS

Abatacept (Orencia®)  
Abciximab (Reopro®)  
Adalimumab (Humira®)  
Aflibercept (Eylea®)  
Alemtuzumab (Campath®)  
Alpha1-Antitrypsin (Prolastin®)  
Basiliximab (Sumulect®)  
Bevacizumab (Avastin®)  
C1-inhibitor (Berinert®)  
Certolizumab pegol (Cimzia®)  
Cetuximab (Erbix®)  
Copaxone  
Daclizumab (Zenpax®)  
Darbepoetin Alpha  
Denosumab (Prolia®)  
Eculizumab (Soliris®)  
Efalizumab (Raptiva®)  
Erythropoietin (Eprex®)  
Etanercept (Enbrel®)  
Etanercept (Enbrel®)  
Exendin-4 (Exenatide®)  
Factor VIII  
Filgrastim (Neupogen®)  
Folicle Stimulating Hormone  
Gemtuzumab ozogamicin (Mylotarg®)  
Glargine (Lantus®)  
Glargine (Lantus®) solution phase  
Glucagon (GlucaGen®)  
Growth Hormone Releasing  
Hepatitis B Immune Globulin (HepaGam B®)  
Hormone (Sermorelin®)  
Human Insulin  
Ibritumomab tiuxetan (Zevalin®)  
IGF-1 (Increlex®)  
Imiglucerase (Cerezyme®)  
Infliximab (Remicade®)  
Insulin Aspart (Novolog®)  
Interferon beta-1a (Avonex®/Rebif®)  
Ipilimumab (Yervoy®)  
mPEG  
Muromonab-CD3 (Orthoclone OKT3)  
Nivolumab (Opdivo®)  
Obinutuzumab (GAZYVA®)  
Octreotide  
Ofatumumab (Arzerra®),  
HuMax-CD20)  
Omalizumab (Xolair®)  
Palivizumab (Synagis®)  
Panitumumab (Vectibix®)  
Pegfilgrastim (Neulasta®)  
Pegylated Proteins  
Pembrolizumab (Keytruda®)  
Pertuzumab (Perjeta®)  
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Ranibizumab (Lucentis®)  
Recombinant Human Hyaluronidase  
Rituximab (Rituxan®)  
Sargramostim (Leukine®)  
Secukinumab (Cosentyx)  
Tositumomab (Bexxar®)  
Trastuzumab (Herceptin®)  
Ustekinumab (Stelara®)  
Vedolizumab (Entyvio®)

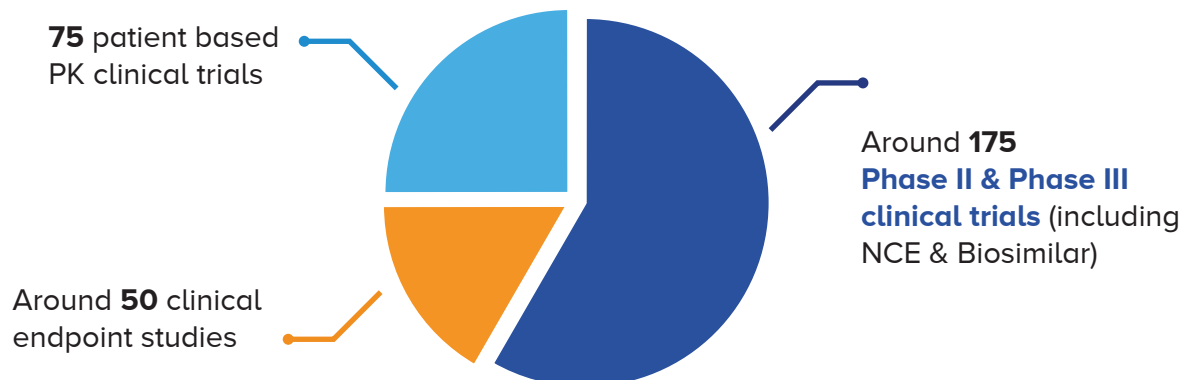
# Charting the course for Early to Late Phase Clinical Development

We cater to key therapeutic areas including:

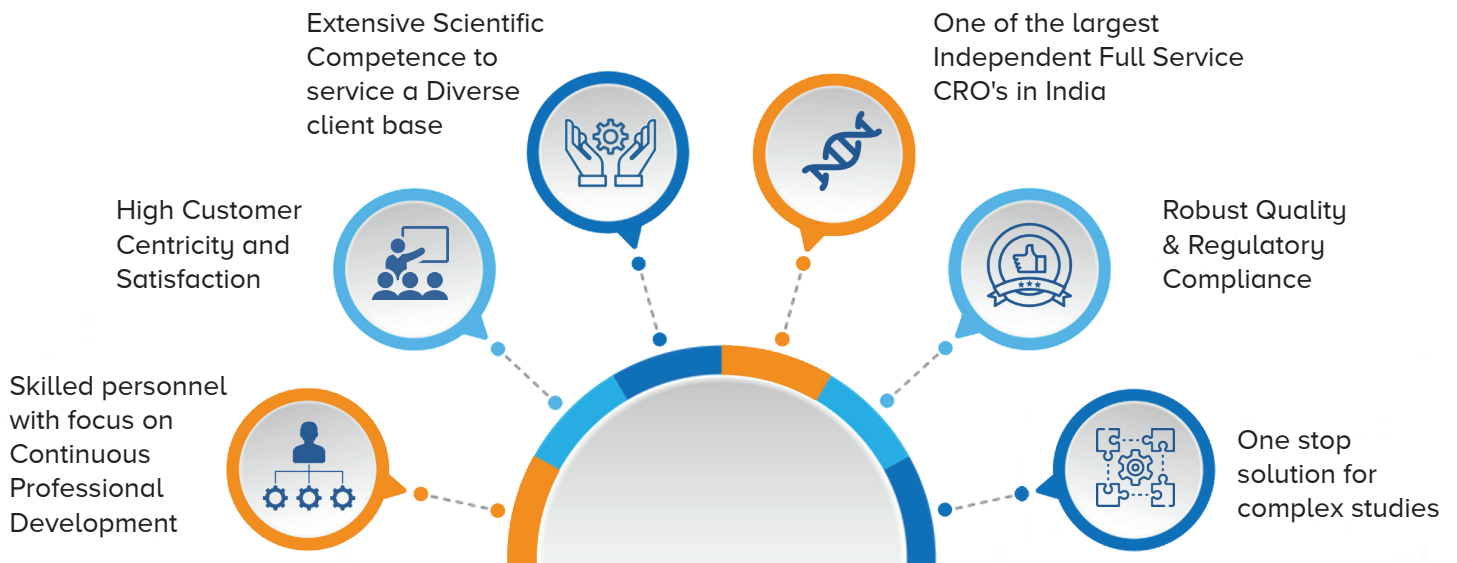


## Combined Team Experience in Clinical Trials

More than **300** clinical trials that includes



# Veeda Group Advantage



## Veeda's Vision

In an industry where innovation is increasingly multifaceted and collaborative, we aspire to be the research partner of choice for innovative (bio) pharmaceutical companies worldwide for their critical product development programs.



✉ info@veedacr.com

🌐 www.veedacr.com

☎ +91 7967773000



✉ bionees@bionees.in

🌐 www.bionees.in

☎ +91 8162214400



✉ info@ingenuitybiosciences.com

🌐 www.ingenuitybiosciences.com

☎ +91 9712919739

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