

BIONEEDS



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Corporate Overview

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Veeda Group

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- Veeda Clinical Research Limited ("Veeda") together with its subsidiary, Bioneeds India Private Limited ("Bioneeds"), 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:
 - Pharmaceutical and Biopharmaceutical
 - Agrochemical and Industrial Chemicals
 - Herbal/Nutraceuticals
 - Medical Devices

Our Global Foot Print

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Corporate Philosophy

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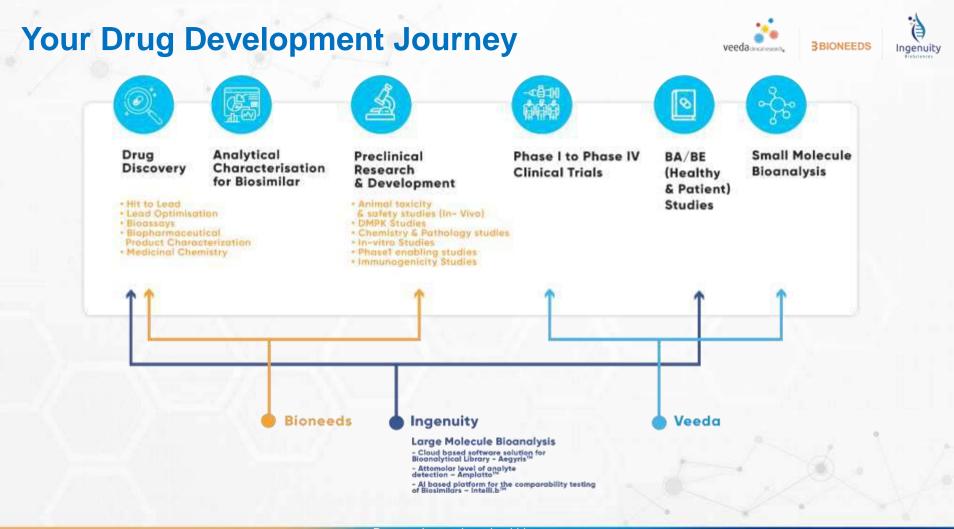
Vision

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

Mission

To be the pre eminent independent Indian contract research Organization, with global execution capabilities, distinguished by the breadth of our services and by excellence in the quality of our Scientific and regulatory knowledge Research design, execution and insights and Client centricity









Bioanalytical Research - Veeda

Infrastructure



Scale and Range

- 46 LC-MS/MS machines
 - Insignia (33) and Vedant (13)
 - API 5500/4000/3200/3000/2000
 - Shimadzu 8060/8050/8040
 - Quattro Premier
- 2 ICP-OES
- Watson LIMS

Storage Capacity



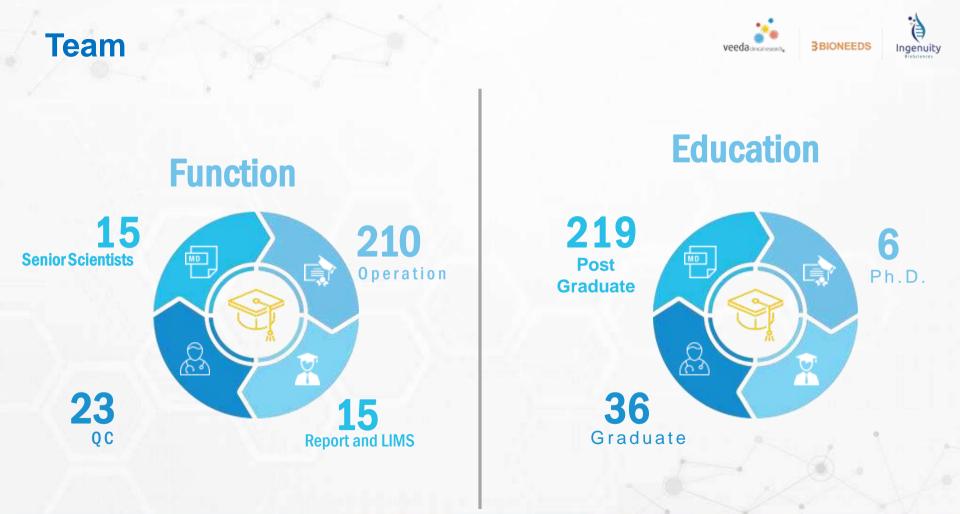
Plasma Sample:

45 Deep freezers with capacity to store 11,25,000 samples at -80 $^{\circ}\mathrm{C}$



IP Storage:

- 3 Walking type stability chambers with overall capacity to store 34000 Ltr for retention at room temperature
- 4 Humidity chambers with overall capacity of 3200 Ltr
- 4 Pharmaceutical refrigerators having storage capacity of 3550 Ltr at 2-8 °C

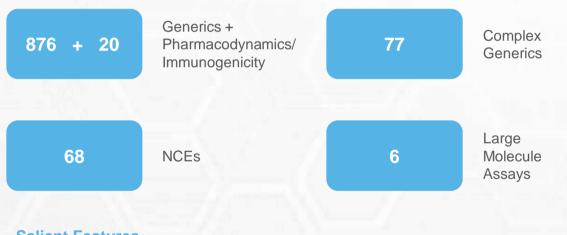


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Experience

Capabilities

Total available Bioanalytical methods are more than 1040



Salient Features

- Average processing capacity of 1,00,000 samples per month
- Central Bioanalytical Laboratory for global Phase II/ Phase III trials



Types of Methods

- Capability to develop methods with lowest quantification level- up to 0.1 pg
- Methods developed for:
 - Endogenous molecules
 - Amino Acids (Multiple analysis in single injection)
 - Hormones
 - Steroids
 - Inhalation formulation
 - Elemental Bioanalysis (Other
 - matrix- Urine)
 - Immunogenicity
 - Large molecules/ECLIA/ELISA
 - Chiral and Liposomal
- Tissue distribution studies.



Central Lab

Central Bioanalytical Lab Services

- Central Lab Services
 - Project Management (COD)
 - Analyte Testing
 - Kit preparation and supply
 - Sample Storage & Management
 - Linking between clinical site and diagnostic laboratories (COD)
 - Data management (PK data Analyte)
 - Training Investigator sites and study teams (Lab Manual-- PK sample collection and Shipment)

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Central Bioanalytical Lab Services

- Dedicated team for Central Lab Services
 - Project Manager
 - Sample management team (BRD custodians)
 - Kits & Logistics coordinator
 - Analytical Team (PK analysis based on projects)
 - Watson Team

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Central Bioanalytical Lab Services

How we can benefit our clients?

• We can offer all services including protocol preparation, project management, data management, lab manual preparation, analysis to report preparation for multi site studies (BA-BE studies).

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- Optimize sample collections (blood volume) for protocol.
- Resolution of queries (sponsor and regulatory).
- PK sample reconciliation.
- Protocol and Analysis with respect to current regulatory requirements.
- Support for PK samples collection with specialized requirement e.g. buffer addition, temperature controlled sample handling.
- Lab manual Preparation Preparation of lab manual which includes sample collection procedure and sample handling and distribution to all sites.

Central Bioanalytical Lab Experience

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- Handling Complex study Multicenter study (which involved more than 35 sites (150 subjects, 10 Analytes)
 - Required screening sample analysis within 10 days from sample collection
 - Estimated 10 analytes for this study- Total 4 bio-analytical methods
 - Provided sample collection kits to all sites- within stipulated time
- Our Broad Experience for NCE molecules with Global Pharmaceutical company
 - Total studies : More than 40 studies ongoing (from Multisites globally, 20000 samples per year)
 - Services provided: Sample management, method development, method validation and analysis of NCEs
 - Sample receipt to analysis within 5 days
 - Sponsor specific reports with e-CTD
 - More than 64 methods developed and validated for NCEs
 - Exploratory studies, e.g. skin tissues, plasma protein binding experiment, chiral impurity estimation in the sample





Complex Methods

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1. Methods for Endogenous Compounds:

- Levothyroxine
- Hydrocortisone
- Isotretinoin
- Estrone (total)
- Estrone (Unconjugated) +Estradiol (Unconjugated)
- Trans and Cis Phytonadione (Geometric isomers)
- Free Thiamine

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2. Methods for Enantiomers (Chiral Methods):

- R & S Ibuprofen
- R-SSS & S-RRR Nebivolol
- R-trans & S-trans Tranylcypromine
- R & S Ketoprofen
- R & S Lercanidipine
- R & S Warfarin
- R & S Praziquantel
- R & S-Metoprolol

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3. Methods for Elemental Analysis (By ICP-OES):

- Potassium (from Potassium Chloride)
- Lithium (from Lithium Carbonate)
- Total iron and Transferrin Bound Iron (from Iron Sucrose)
- Magnesium (from Magnesium glycerophosphate)
- Zinc (from Zinc Acetate)

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• Liposomal Doxorubicin and Amphotericin: Challenging method in terms of preventing leaching of doxorubicin from liposome while storage and analysis. Analytes to be measured are free and

liposomal.

- Amino Acids Analysis: Separation of 20 amino acids and their quantification
- **Paclitaxel**: Estimation of protein free (unbound) paclitaxel by filtration through ultrafiltration device.

 Iron Sucrose: For Transferrin bound iron the serum samples are filtered through SPE cartridges to remove free and formulation bound iron while the filtrate contains TBI which is further analyzed by ICP OES.

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- Peptides (small molecules) by LCMSMS: sensitivity and extraction issues
 - Desmopressin
 - Leuprolide
 - Octreotide
- Biomarker analysis α1 Acid Glycoprotein AAG: Method HPLC-UV, large molecule (biomarker) validated method for clinical support.





Recognitions

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Recognitions

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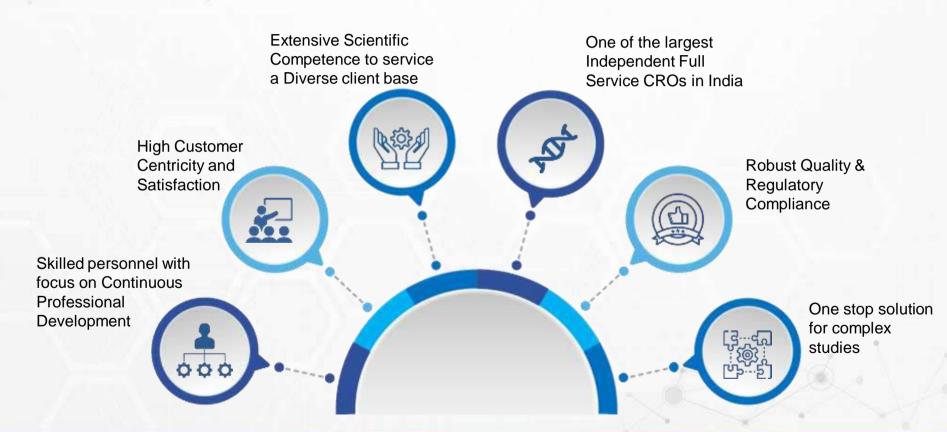
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Veeda Group Advantage

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THANK YOU

For any further assistance kindly write to us at **info@veedacr.com** Visit us at **www.veedacr.com**

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