Envigo Corporate & Industry Overview

Rutgers University

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Corporate Vice President, Strategic Marketing
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Who we are

Envigo is a global contract research products and services company serving pharmaceutical, chemical, crop protection, academic and government markets.
Our brand promise

Envigo focuses on what matters to you – scientific and customer service excellence.

We work closely with you to secure the potential of your research and products.

We are dedicated to research that makes a difference in the lives of people all over the world.

Together, we make the world a healthier and safer place to live.
Global capacity, local presence

50+ locations
Global availability of research models and CRO services

3 continents
Our business spans North America, Europe and Asia

3,800+ employees
Serving over 65 countries

150 years
Combined industry experience
Customers…

Envigo supports more than 5,000 customers across industry, academia and government each year

+ 19 of the top 20 global pharmaceutical companies
+ 15 of the top 20 crop protection and chemical companies
+ Virtual companies to multinationals
+ Academic and government biomedical researchers
++ CRS global footprint

7 locations
Global availability research laboratory services

3 continents
Extensive reach across North America, Europe and Asia

500 animal rooms
Across our locations

1,600+ employees
Serving over 65 countries

150 years
Combined industry experience
Services for the pharmaceutical industry

<table>
<thead>
<tr>
<th>Clinical</th>
<th>Non-clinical</th>
<th>CMC</th>
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</thead>
<tbody>
<tr>
<td>Discovery services</td>
<td>IND/ CTA enabling</td>
<td>Proof of concept</td>
</tr>
<tr>
<td>MAA/ BLA/ NDA</td>
<td>Post-marketing</td>
<td></td>
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Clinical study management and consultancy, bioanalytical support

Regulatory affairs and consultancy, program management

- Investigative pharmacology
- Species selection
- Short-term safety studies
- Safety Pharmacology
- Biomarkers & Bioanalysis

- Sub-chronic safety studies
- Reproductive toxicology
- Biomarkers & Bioanalysis

- Chronic safety studies
- Reproductive toxicology
- Environmental risk assessment
- Biomarkers & Bioanalysis

GMP batch release and stability testing

Formulation / indication changes
Follow on products
Investigational studies
Contract Research Services

Services

General Toxicology – all species
Safety Pharmacology
  Cardiovascular
  Respiratory assessment
  Central nervous system
  Electrophysiology

Speciality Toxicology
  Reproductive
  Inhalation
  Infusion
  Carcinogenicity
  Juvenile
  Neurotoxicity
  Special Pathology (e.g. crossreactivity)

Genetic Toxicology
  Ames test
  Mouse lymphoma assay
  Chromosome aberration test
  In vitro micronucleus test
  In vivo micronucleus test
  Unscheduled DNA synthesis test (in vitro and in vivo)
  Comet assay (in vitro and in vivo)

In Vivo Discovery Lead Optimization Pharmacology, Bioanalysis and Biomarker translational assessment
  Models in:
  Respiratory inflammation
  Gastrointestinal
  Anti-infective
  Cardiovascular

Metabolism
  General ADME
  Biotransformation
  Metabolite Profiling
  In Vitro Metabolism
  Autoradiography
  Radiosynthesis
  Pharmacokinetics

Analytical Support
  Bioanalysis
  Biologics and Biomarker Analysis
  Clinical Sample Analysis
  Dose Formulation Analysis

Environmental Risk Assessment
  Terrestrial Ecotoxicology
  Aquatic Ecotoxicology
  Biodegradation
  Environmental Fate
  Animal Metabolism

Regulatory and Clinical Consultancy (Pharma)

CMC Testing Services
  Biopharmaceutical analysis including q-PCR
  Batch release and testing
  Stability testing
  Microbiology
  Stress testing
  Pharmacopeia testing
CRS Pharmaceutical

+ Full range of services for pharmaceutical development
+ Animal health and medical device
+ Broad range of therapeutic areas
+ Experience working with startups through to the global top 20
Services for the crop protection and chemical industries

- Full service
  - Regulatory strategy, scientific consultancy, managed programs
  - Laboratory testing:
    - Product chemistry,
    - Genetic toxicology,
    - Mammalian toxicology and oncogenicity,
    - Ecotoxicology,
    - Environmental fate/effects,
    - Field trials/residues
  - Dossier preparation, submission, post-submission

- Agrochemicals
- Industrial chemicals
- Food
- Biocides products
CRS Crop Protection

- Facilities across Europe, US, Japan, Korea and Israel
- Full range of testing, regulatory and consultancy services for crop protection customers
- Significant top 20 global customer base
- Market-leading experience serving the crop protection industry globally
Facilities across Europe, US, Japan, Korea and Israel

Supporting our chemical customers with regulatory requirements (e.g.; REACH)

Global customer base

Market-leading experience serving chemical industry globally
Examples of customer products we work on

<table>
<thead>
<tr>
<th>Pharmaceuticals</th>
<th>Textile treatments</th>
<th>Plant protection products</th>
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</thead>
<tbody>
<tr>
<td>Animal health products</td>
<td>Environmental</td>
<td>Food additives and flavourings</td>
</tr>
<tr>
<td>Polymers</td>
<td>Personal care products</td>
<td>Pesticides</td>
</tr>
<tr>
<td>Coatings</td>
<td>Automotive products</td>
<td>Employee safety</td>
</tr>
<tr>
<td>Airline fire extinguishers</td>
<td>Oral care products</td>
<td>Medical devices</td>
</tr>
<tr>
<td>Fuel additives</td>
<td>Detergents</td>
<td>Pigments, dyes and inks</td>
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RMS
Research animal models, services, diets, bedding and enrichment

+ Broad range of high-quality animal models available worldwide
+ Convenient, labor-saving services, including surgery, custom breeding, colony housing, and genetic and health monitoring
+ High-quality Teklad lab animal diets, bedding and environmental enrichment
+ Biologic products, including tissue, serum, and antibodies
Supporting a wide range of research areas

- Aging
- Behavior
- Cardiovascular
- Immunology
- Metabolism
- Oncology
- Toxicology
Research Models and Services

Envigo production sites in North America, Europe, the Middle East and Asia

North America
Corporate HQ: Indianapolis, IN
+ Dublin, VA
+ Frederick, MD
+ Haslett, MI
+ Houston, TX
+ Indianapolis, IN
+ Livermore, CA
+ Madison, WI
+ Mexico City, Mexico

Europe
European Office: Venray, Netherlands
+ Blackthorn, UK
+ Bresso, Italy
+ Gannat, France
+ Horst, Netherlands
+ Loughborough, UK
+ Udine, Italy
+ Wyton, UK

Middle East
+ Jerusalem, Israel
+ Rehovot, Israel
+ Yokneam, Israel

India
+ Hyderabad, India
Pharmaceuticals Industry Overview

Key Facts
- $1.05 Trillion in prescription drug sales
- $160B spent on R&D worldwide
- 810,000 US jobs, 3.4M indirectly
- Over 150,000 R&D jobs
- Over 7000 medicines in development
- Progress in AIDS, Cancer, Hepatitis C, Vaccines, etc.
Where will you spend your time?

Aspects of drug development and commercialization
Key Facts

+ $3.7 Trillion in sales worldwide
+ $50B spent on R&D worldwide
+ 4.5M job worldwide, 20M indirect
+ 820K jobs in US
+ Many thousands on market and 800 new products in development per year globally
Where will you spend your time?

Aspects of chemical products development and commercialization

Risk-based management throughout the lifecycle of chemical substances

- Risk assessment of handled substances on human health and the environment
- Risk assessment for manufacturing process and handling

- Raw material green management
- Safety assessment for manufacturing processes
- Risk assessment for human health
- Risk assessment for the environment

- Product safety assessment
- Provision of safety information through SDS
- Provision of logistic safety information through Yellow Cards
- Risk assessment according to application and usage
- Disclosure of GPS safety abstract

Comprehensive chemicals management system (K-Mates), other information
Envigo Brand Video

https://youtu.be/nYD59XrJRtw
Facilities Tour
Thank you.

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