

Dedicated companies¹

| Aachen Proteineers GmbH | Baesweiler | | | Emergence Therapeutics AG | Duisburg | |
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| | | | | | | |

| qubeto GmbH | Münster | | Other biotechnologically active co | ompanies¹ | |
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| Ridom GmbH | Münster | p. 64 | BASF Personal Care and Nutrition GmbH | Monheim | |
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| SenseUp GmbH | Jülich | p. 58 | Bayer AG | Wuppertal | |
| Senzyme GmbH | Troisdorf | p. 59 | BAYER CropScience AG | Monheim | |
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¹ Including companies that were established in NRW after 2021 and company sites that are not headquaters and thereby not included in the key figures of 2021. OECD definition on page 76





Non-specific services



Acus Laboratories GmbH was founded in 2018 as a spin-off company from the Max Planck Institute for Biology of Ageing in Cologne. Based on unique forward genetic screening technologies. Acus offers services for deconvolution and validation of molecular drug target structures, identification of off-targets, and drug resistance

prediction to pharmaceutical industry and biotech partners.

Acus mid-term vision is to uncover novel drug target structures that initiate collaborative 'first-in-class' drug development projects.

Acus Laboratories GmbH Name c/o hauptcwartier coworking Address Philippstraße 27 Postal Code/City 52349 Düren +49 22137970-446 E-Mail info@acuslabs.com www.acuslabs.com Internet **Employees** <10 Founded (year) 2018



ARTES Biotechnology is an independent technology provider for the pharmaceutical industry. Our business focus is on:

- vaccine development (VLP technology)
- process development of biopharmaceuticals
- transfer of biosimilar processes

Our technologies have resulted in innovative products marketed worldwide. WHO recom-

mendation, international registration, EMA resp. FDA approval and GRAS certification are achieved in international collaborations. Expression platforms include high yield yeasts and E. coli system for efficient protein production. Our unique chimeric virus like particle (VLP) platform METAVAX® is best suited for the development of highly immunogenic vaccines in human and animal health.

Our proprietary technologies ensure freedom-to-operate and reliable, competitive production of innovative targets marketed worldwide.

ARTFS Name Biotechnology GmbH Address Elisabeth-Selbert-Str. 9 Postal Code/City 40764 Langenfeld +49 2173 27587-0 Fon +49 2173 27587-77 Fax info@artes-biotechnology.com E-Mail Internet www.artesbiotechnology.com **Employees** 25 Founded (year) 2002

BBT B

Biotech GmbH

BBT Biotech GmbH produces freeze-dried viable bacteria (probiotics like lactobacilli, bifidobacteria, yeasts) and metabolites not only in bulk but also in finished dosage forms to the pharmaceutical and health-food industry.

The fermenter capacity is up to 18.000 l. The downstream process is based on separators, filtration systems, chromatography and freeze dryers. On the basis of individual needs BBT Biotech GmbH also offers active pharmaceutical ingredients like thrombolytics (streptokinase, urokinase), fertility hormones (HCG, HMG, FSH), inhibitors (Aprotinin, UTI) and others (Hyaluronidase, Corticotrophin).

In addition we are offering a full service to our customer:

- early development
- manufacturing of the API under GMP conditions
- · inclusive dossier writing in eCTD format.

BBT Biotech GmbH Name Address Arnold-Sommerfeld-Ring 28 Postal Code/City 52499 Baesweiler +49 2401 93 310-0 +49 2401 93 310-90 Fax office@bbt-biotech.de E-Mail www.bbt-biotech.de Internet 30 **Employees** Founded (year) 1999

Name

beniag GmbH

Address Postal Code/City

Huthmacherstrasse 20 52428 Jülich

Fon +49 2461 616 734

+49 1578 0393 499 Fax +49 2461 613 907

E-Mail info@beniag.com Internet www.beniag.com

Employees Founded (year)

< 10 2013



beniag is a biotechnology company providing unique and highly efficient solutions to incorporate molecules into living cells and tissue in vitro. Based on membrane fusion as a completely novel and patented transfer mechanism, beniag liposomes offer an outstanding opportunity for customers to incorporate any type of molecule or

aggregate with extremely high efficiency within a few minutes. The unique transfer mechanism allows manipulation of basically every mammalian cell type and incorporates molecules directly into the cytosol, to guarantee their immediate bioactivity.

beniag focusses on production and development of customer oriented solutions with cooperation partners distributing the product line "Fuse-It" worldwide.

Name

BIBITEC GmbH & Co. KG

Postal Code/City 33611 Bielefeld

Address Westerfeldstr. 37

E-Mail contact@bibitec.de Internet www.bibitec.de

Employees 18 Founded (year)

Fon +49 521 430 602 40

2001



BIBITEC GmbH & Co. KG, a 100 % subsidiary of Nordmark Pharma GmbH, is offering an all-in-one solution for mammalian cell culture technology.

Together with qualified partners, BIBITEC is able to cover the entire value chain from cell line and process development, analytics, GMP production of API and finished drug product up to regulatory affairs and market production. Our value added

services also include pharmaceutical development, ICH conform stability and viral safety studies.

Our project manager is your primary contact and is responsible for steering the entire process. With our customized project support BIBITEC is the partner of choice for biotech companies with individual needs.

Name BioEcho Life Sciences **GmbH**

Postal Code/City

Address Nattermannallee 1 50829 Köln

Fon +49 221 9988 97-0 Fax +49 221 9988 97-29 E-Mail contact@bioecho.de Internet www.bioecho.de

Employees 74 Founded (year)

2016



BioEcho Life Sciences is a specialized solution provider for the extraction and analysis of nucleic acids. We create disruptive technologies. products, and workflows that make downstream processing of nucleic acids easier and faster, significantly increase throughput, and deliver reliable results. Our EchoLUTION technology enables the fastest DNA and RNA extraction on the market - in just one single step. It reduces the associated plastic consumption by up to 70 %. Customers in molecular diagnostics, academic and biopharmaceutical research, plant, and animal breeding rely on our products: ready-to-use kits, high-throughput solutions for automation platforms, nucleic acid extraction services and process optimization for molecular biology laboratories. BioEcho is certified according to ISO 9001 and ISO 13485. BioEcho. The Nucleic Acid Experts.



Biofidus is an analytical company located in Bielefeld, Germany. Its services include a wide variety of (bio)analytical methods such as spectroscopic, chromatographic, mass spectrometric and cell-based assays focused on structural and functional characterization of proteins as well as small molecules. Biofidus is specialized in the

characterization of biopharmaceuticals or biosimilars, including but not limited to monoclonal antibodies, Fc-fusion proteins, enzymes, and ADCs. Additionally, Biofidus offers spent media analysis for fermentation and cell culture technology, which includes the analysis of amino acids, metabolites, and vitamins in culture media. Besides proteins and small molecules, Biofidus is also supporting studies focusing on the characterization of cell and gene therapeutics such as AAV vectors.

Address
Postal Code/City

Fon
E-Mail
Internet

Employees
Founded (year)

Biofidus AG

Morgenbreede 1
33615 Bielefeld

+49 521 89 739 060
info@biofidus.de
www.biofidus.de
20
2015



CellSystems GmbH markets a comprehensive portfolio of more than 10,000 high-quality products and services for life sciences and biotherapeutic research, such as enzymes for tissue dissociation, a wide range of human primary cells and optimised cell culture media, cell culture reagents (e.g. cytokines, growth factors) and extracellular matrix proteins for 2D

and 3D cell cultures. CellSystems is also a reliable partner for induced Pluripotent Stem Cell (iPSC) research, offering a state-of-the-art portfolio of iPSC cell lines, feeder-free culture and differentiation media, as well as gene editing services (i.e. CRISPR/Cas9). In addition, CellSystems is a leading provider of plasma proteins, bovine proteins, angiostatins and custom reagents for haemostasis research.

CellSystems – your dependable supplier of life science products for over 30 years.

Address Junkersring 5
53844 Troisdorf

Fon Fax Hamil Internet Employees Founded (year)

Postal Code/City 53844 Troisdorf

Fon 449 2241.25515-0
+49 2241.25515-30
info@cellsystems.de
https://cellsystems.de



With more than 50 years of experience and proven regulatory expertise, the Charles River Biologics group can address challenging projects for biotechnology and pharmaceutical companies worldwide.

Offering a variety of services such as contamination and impurity testing, protein characterization, bioassays, viral clearance studies and stability and lot release

programs, we support clients throughout the biologic development cycle, from the establishment and characterization of cell banks through preclinical and clinical studies to marketed products.

Whether clients need stand-alone services, a unique package of testing, or insourced support, our Biologics group can create a custom solution to suit their needs

Charles River Laboratories Name Germany GmbH Address Max-Planck-Str. 15A Postal Code/City 40699 Erkrath +49 211 9255-300 Fon +49 211 9255-333 Fax F-Mail askcharlesriver@crl.com www.criver.com Internet Founded (year) 1993

Name

Chimera Biotec GmbH

Postal Code/City

Address Emil-Figge-Str. 76a 44227 Dortmund

Fon +49 231 9742-840 Fax +49 231 9742-844 E-Mail info@chimera-biotec.com Internet www.chimera-biotec.com

Employees 20 Founded (year)

2000

2012

chimera biotec

Chimera Biotec is your GLP-certified CRO for ultra sensitive and technically demanding immunoassays since 2000. For over 20 years, Chimera Biotec has provided large-molecule GLP/GCP-compliant bioanalytical support for all phases of drug development in accordance with guidelines (FDA, EMA, ICH10).

S Cube Biotech

We provide bioanalytical support on several platforms, including ELISA, MSD™, Simoa® and Imperacer®, our proprietary Immuno-PCR technology. Chimera has the expertise and technical capabilities to identify the ideal platform technology based on and run according to your pharmacological and regulatory requirements. Our services include assay development, method validation, technology evaluation and bioanalytical support for quantifying large molecule targets in virtually any biological matrix.

Name

Cube Biotech GmbH

Address Postal Code/City

40789 Monheim

Fon Internet

+49 2173 99373-0 Fax +49 2173 99373-99 E-Mail contact@cube-biotech.com www.cube-biotech.com

Employees 27 Founded (year)

Alfred-Nobel-Str. 10

The Cube Biotech team serves the biotech and pharmaceutical community with its expertise on expression, purification, stabilization and functional/structural characterization of proteins. Our projects focus on the pharmaceutically relevant class of membrane proteins. Both products and services are offered: A broad range of products for the affinity chromatography

manufactured in house at high quality. The product offering is complemented by reagents such as detergents, cell-free expression lysates, nanodisc scaffold proteins, and patented membrane protein crystallization plates. Some particularly relevant membrane proteins (GPCRs) are available as fully characterized preparations.

Our services cover the expression, purification, stabilization and crystallization of soluble and membrane proteins for applications like cryo electron microscopy, antibody generation, crystallization and assays.

Name

IIT BioTech - Institut für Innovationstransfer an der Universität Bielefeld GmbH

Address

Postal Code/City 33615 Bielefeld Employees 14

Universitätsstr. 25 University of Bielefeld Fon +49 521 106 8756 +49 521 106 89041 E-Mail service@iit-biotech.de Internet www.iit-biotech.de Founded (year) 1995



of proteins and stabilization of proteins are

The Institut für Innovationstransfer GB Biotech (IIT Biotech) offers integrated genomic services. Since some years the main provided service is the "next generation sequencing".

The high-throughput techniques performed by Illumina HiSeg and MiSeg or by IonTorrent PGM can be offered combined with a powerful lab & bioinformatic pipeline providing full service tasks like genomic assembly, gap closure and annotation.

Furthermore we offer individual solutions for the bioinformatic evaluation of project data. This includes construction of draftgenomics, storage/care of genome projects, analysis in resequencing and metagenomics and development/customization of analysissoftware.

ISOLOID

AMYLOID PROTEINS AND PEPTIDES

High-purity samples of amyloid proteins and peptides are a key prerequisite for research and development on many severe diseases, such as Alzheimer's, Parkinson's and Diabetes mellitus type 2. However, the biotechnological production of these proteins turned out to be challenging

due to harmful effects on the producing organisms.

Based on an innovative and proprietary technology Isoloid GmbH overcame this challenge to offer high purity protein samples and labeled derivatives to your lab.

As a joint spin-off from Heinrich-Heine-University Düsseldorf and Forschungszentrum Jülich we build on a strong expertise and plenty years of experience in structural biology and biophysics to promote your research project.

| Name | Isoloid GmbH |
|--------------------|--------------------|
| | |
| | |
| Address | Erkrather Str. 401 |
| Postal Code/City | 40231 Düsseldorf |
| 1 Ostal Oode/ Oity | 40231 Du33Cld011 |
| Fon | +49 211-81 15143 |
| E-Mail | info@isoloid.de |
| Internet | www.isoloid.de |
| memer | www.isoloid.de |
| Fmnlovees | <10 |

2015

Founded (year)



LenioBio is a life science biotech offering a novel protein expression technology. We enable the discovery, development, and large-scale manufacturing of difficult-to-express proteins. We have developed a eukaryotic cell-free protein technology, AliCE, that is scalable and will change the way proteins are produced today; across all industries. We believe that every person deserves an equal chance to lead a healthy life. This begins with

access to effective and affordable medicines wherever they are needed. Born from our dream to produce enough Ebola vaccines quickly after the 2015 Ebola pandemic, when 1,000 people were dying every month. Manufacturing of 3000 doses of the ZMapp vaccine in plants would have required 40,000m² of greenhouse and taken 90 days. LenioBio has one goal. To simplify manufacturing and speed up the delivery of drugs to the patient. Our technology has the potential to level the playing field. Any biotech company with great purpose, regardless of its size or location, can now soon bring its product to the market.

| Name | LenioBio GmbH |
|------------------|-------------------|
| Address | Erkratherstr 401 |
| Postal Code/City | 40231 Düsseldorf |
| Fon | +49 211 890940300 |
| E-Mail | info@leniobio.com |
| Internet | www.leniobio.com |
| Employees | 31 |
| Founded (year) | 2016 |
| | |

Lonza

The Lonza Cologne site develops, manufactures and markets a comprehensive product portfolio of life-science research tools around cultured cells, including nonviral gene transfer products for primary cells and hard-to-transfect cell lines.

These products support scientists worldwide, enabling more efficient identification of new targets for pharmaceuticals and therapies. Additionally Lonza Cologne

GmbH offers customized services, e.g. transfection services, proliferating cell services and cell modification services.

| Name | Lonza Cologne GmbH |
|-----------------------------|---|
| Address Postal Code/City | Nattermannallee 1 50829 Köln |
| Fon E-Mail Internet | +49 221 99199-190 info.cologne@lonza.com www.bioscience.lonza.com |
| Employees Founded (year) | 113 1998 |

Miltenyi Biotec B.V. & Co. Name Address Friedrich-Fbert-Str. 68 Postal Code/City 51429 Bergisch Gladbach Fon +49 2204 8306-0 Fax +49 2204 85197 E-Mail macsde@miltenvi.com Internet www.miltenyibiotec.com Employees 4,000 Founded (year) 1989



Miltenyi Biotec develops products and services that advance biomedical research and cell therapy. Our technologies inspire scientists in basic and translational research, and support clinical applications. Our integrated solutions enable sample preparation, cell separation, cell sorting, flow cytometry, cell culture, imaging, and molecular analysis. Over 50,000 scientific publications and the manufacture of more than 100.000 cell products for clinical use demonstrate the profound trust scientists and clinicians have in MACS® Technology.

Miltenyi Biotec has been at the forefront of immunology, stem cell biology, cancer research, and neuroscience, as well as the clinical areas of hematology, graft engineering, and apheresis, for nearly 30 years. About 4,000 employees in 28 countries are passionate about our cell and gene therapy solutions.

Name

PAIA Biotech GmbH

Address Postal Code/City

Gottfried Hagen Str. 60-62 51105 Köln

Fon +49 221 1686 2380 E-Mail info@paiabio.com www.paiabio.com

Employees 10 Founded (year)

2014



PAIA Biotech GmbH offers assays for the rapid quantification of antibodies and proteins as well as glycosylation assays based on its proprietary technology. This technology uses proprietary 384-well microplates that drastically simplify the workflow of bead-based immunoassay with fluorescence detection. The assays are amenable to automation and run on fluorescence plate readers or microscopes. PAIA Biotech focuses on products for screening applications with limited sample volume and high throughput requirements, e.g. in early cell line development.

In addition to off-the-shelf products PAIA Biotech GmbH also offers custom assay development.

PAIA Biotech GmbH was founded in 2014 and is based at the RTZ in Cologne.

Name

PL BioScience GmbH

Address Postal Code/City

Dennewartstraße 25-27 52068 Aachen

E-Mail

Fon +49 241 95719-100 Fax +49 241 95719-109 info@pl-bioscience.com Internet www.pl-bioscience.com

Employees 15 Founded (year)

2015



PL BioScience is an Aachen-based life science company committed to cell expansion in safe conditions. PL BioScience was founded in 2015 as an RWTH Aachen University spin-off. The company's mission is to enhance the advances in cellular research and therapy with one

forward-looking Technology: ELAREM™. The ELAREM™ Platform unites tailored cell culture supplements based on Human Platelet Lysate. The human origin combined with a rich growth factor content not only supports cell growth, but also enables various applications: The products comply with the highest safety guidelines for cell expansion, and thus cover all needs for cell expansion in academic research, pre-clinical research, and cellular therapy. This ensures seamless transitions in regenerative medicine – from lab to patients in need.



The better way to DNA – PlasmidFactory is the leading contract manufacturer of plasmid and minicircle DNA and the driving force in the development of non-viral vectors for gene therapy and genetic vaccination. PlasmidFactory's research, development and the complete service are located in Biele-

feld, Germany. PlasmidFactory's individual manufacturing service is frequently used by researchers from the fields of transfection and drug delivery, virus production, nano-biotechnology, gene therapy, cell or tumor therapy, and RNA or DNA vaccination. All products are offered in several quality grades: Research Grade and ccc Grade qualities for research purposes and pre-clinical applications, High Quality Grade as starting material for e.g. GMP production of RNA, viral vectors and CAR-T cells. In Stock products e.g. reporter genes and AAV Helper & Packaging vectors are also provided.

| Name | PlasmidFactory GmbH |
|------------------|-------------------------|
| Address | Meisenstr. 96 |
| Postal Code/City | 33607 Bielefeld |
| Fon | +49 521 2997-350 |
| Fax | +49 521 2997-355 |
| E-Mail | info@plasmidfactory.com |
| Internet | www.plasmidfactory.com |
| Employees | 33 |
| Founded (year) | 2000 |



ProtaGene (PGN) is a world leading CRO and recognized expert in analytical services in protein science and gene therapy products. 25 years of market experience and the comprehensive spectrum of validated analytical methods ensure the highest quality for customers in the phar-maceutical, biotech and life science industry. The company is an excellent partner for the biopharmaceutical

industry worldwide to benefit from the most advanced, integrated and complete analytic services capabilities and platforms in biopharmaceutical development, from clone selection through drug approval to commercialization. In working together with their pharmaceutical partners, the PGN teams generate best-in-class analytic data packages and provide scientific, technical and regulatory support to advance, derisk and accelerate all stages of biopharmaceutical development by all-in-one-hand service with complete documentation and outstanding project management to gain market success.

| Name | ProtaGene GmbH |
|------------------|-----------------------|
| | |
| Address | Otto-Hahn-Straße 15 |
| Postal Code/City | 44227 Dortmund |
| Fon | +49 231 9742-6100 |
| E-Mail | contact@protagene.com |
| Internet | www.protagene.com |
| Employees | 220 |
| Founded (year) | 1997 |
| | |



Proteona is a biomedical company in Germany, Singapore and the US that is pioneering the use of single cell proteogenomics to improve clinical outcomes in cancer. Using a combination of innovative single cell assays and Al-assisted bioinformatics, Proteona provides a comprehensive sample to answer service that enables users to phenotype cells using standard protein markers and

gain a deeper understanding of cell activity based upon their gene expression profiles. Proteona is leading an international alliance to develop neutralizing antibodies against coronaviruses including SARS-CoV-2. In addition, Proteona supports partners developing COVID-19 therapies and vaccines with single cell immune profiling services.

| Name | Proteona GmbH |
|-----------------------------|----------------------|
| Address Postal Code/City | 50931 Köln |
| E-Mail | info@proteona.com |
| Internet | https://proteona.com |
| Employees | 10-20 |
| Founded (year) | 2017 |

Name

Sartorius Xell GmbH

Postal Code/City

Address Waldweg 21 33758 Schloss Holte-Stukenbrock

Fon +49 5207 9597-200 Fax +49 5207 9597-201 E-Mail info@xell.de Internet www.xell.de

Employees 60 Founded (year)

xell

Xell is now part of Sartorius

Sartorius Xell is an innovative partner for the biotech and pharma industry, providing efficient solutions in cell culture technology. Sartorius Xell offers culture media and feeds for all commonly used cell types (CHO, HEK. Hybridoma etc.) and applications (biopharma and viral vector-based production). Our chemically defined products are animal

component free and GMP compliant. Reliable analytical services (e.g., amino acids, vitamins, or polyamines) are served for various matrices with unmatched timelines for the biopharma, biotech, and R&D industries. We also offer cell and process services at BSL-1 and BSL-2 labs to optimize production processes. Since 2019, Xell has extended its capabilities for large-scale production of liquid (up to 220,000 L/a) and powder (up to 140.000 kg/a) media and related solutions at its own facility. In July 2021, a new chapter full of opportunities began with the acquisition by Sartorius.

Name

Serengen GmbH

2009

Address Postal Code/City

Emil-Figge-Str. 76a 447227 Dortmund

Fon Fax

+49 231 999 50 901 +49 231 999 50 999 E-Mail info@serengen.com www.serengen.com

Employees 3 Founded (year)

2019



Unbiased screening of chemical compounds remains the most valuable approach to identifying hits in drug discovery. However, as it is resource and time intensive, it is currently only used for selected projects in large companies.

Our unique DNA-encoded library (DEL) technology is the fastest and most economical method for hit identification. allowing invaluable serendipity. For the first time, unbiased sampling of chemical space for hit identification becomes affordable for any drug discovery project in any organisation.

Our breakthrough technology removes the existing limitations of DNA-compatible chemistry. Our DELs consist exclusively of biologically relevant, druglike molecules. Consequently, our hits can be fed directly into your drug discovery process without the need for expensive transformation of DFL hits into tractable hits.

Name

Singleron Biotechnologies **GmbH**

Address Postal Code/City Gottfried-Hagen-Straße 60 51105 Köln

E-Mail

Fon +49 221 16824777 info@singleronbio.com Internet www.singleronbio.bio

Employees Founded (year)

over 600 2018



Singleron Biotechnologies, an innovative, fast-growing company, is dedicated to applying groundbreaking single cell analyses to clinical research, diagnostics, and drug development. The company was incorporated in January 2018 in China and the US and opened its European branch in Cologne, Germany in early 2021, More than 600 single cell sequencing experts

worldwide work together to accelerate research and clinical progress with their advanced and proprietary multi-omics single cell technologies. Their focus on clinical applications addresses the need of researchers to translate the deep insight of diseases into guidance for medical practice.

Singleron offers a one-stop shop solution for high-throughput single cell analysis comprising consumables, instruments and software as well as sequencing services with extensive bioinformatic analysis.



Squarix GmbH is a privately-held primary manufacturer of high purity Discovery Chemicals and Immunoreagents. Since 1992, Squarix produces a broad product line of compounds that include innovative building blocks, reactive intermediates, natural products and derivatives, screening

compounds for drug discovery industry and reagents for life science applications comprising antibodies, metabolic intermediates, fluorescent dyes & probes and different affinity matrices for proteins and cells. Moreover, Squarix is a custom producer of polyclonal and monoclonal antibodies for biomedical research and offers all type of immunoanalytical services in the field of antibody technology.

| Name | Squarix GmbH |
|------------------|-------------------|
| Address | Elbestr. 10 |
| Postal Code/City | 45768 Marl |
| Fon | +49 2365-20400-0 |
| Fax | +49 2365-20400-60 |
| E-Mail | info@squarix.de |
| Internet | www.squarix.de |
| Employees | 9 |
| Founded (year) | 1992 |



vivo Science is a GLP/GMP certified service company for the pharmaceutical industry (CRO) offering in vivo toxicology studies and is specialized in the testing of immunotoxicity (ICH-S8) and immunogenicity (ICH-S6) of new drug candidates, especially if derived

from biotechnology. By merging with the international Texcell Group with subsidiaries in Europe, Asia and North America, vivo Science has expanded its portfolio and now acts as a full service provider in the preclinical testing of biologics, pharmaceuticals, medical devices and chemicals as well as in GMP cell banking and viral safety.

In addition, vivo Science can include immunological tests into standard toxicity studies. vivo Science will provide GLP/GMP compliant, validated study protocols and will assist you in setting up a customized test program for your special requirements.

Name vivo Science GmbH Address Fabrikstr. 3 Postal Code/City 48599 Gronau +49 2562 8170-0 Fon +49 2562 8170-19 Fax E-Mail info@vivoscience.de Internet www.vivoscience.de **Employees** 21 Founded (year) 2001



Nanobiotech company having more than 20 years experience in surface derivatisation with bioinert and biofunctional nanocoatings. Manufactures SPR or other biosensor chips, coated slides for protein, cell and DNA based assays. Custom coating of many materials, including glasses, metals and plastic, also for biomedical

devices. The hydrogel nanolayers exhibit an excellent haemo- and tissue compatibility and can be derivatized with growth or adhesion factors.

As complement to the biochip product line, XanTec offers SPR biosensors, which allow highly sensitive real-time and label-free detection of biomolecular interactions at the molecular level. These instruments can analyze binding constants / kinetics and allow rapid concentration determination, drug screening, epitope mapping, or adhesion studies with cells or viruses.

| Name | XanTec bioanalytics GmbH |
|------------------|-----------------------------|
| Address | Merowingerplatz 1a |
| Postal Code/City | 40225 Düsseldorf |
| Fon | +49 211 9936-4744 |
| Fax | +49 211 9936-4746 |
| E-Mail | info@xantec.com |
| Internet | www.xantec.com |
| Employees | 12 |
| Founded (year) | 1997 |



Health and medicine (including animal health)

A B A L S

Abalos Therapeutics has harnessed the unique immune stimulation of the arenavirus to develop a novel anti-cancer approach that provides the full breadth of the immune system's power specifically against cancer cells. Through viral replication within cancer cells, Abalos' arenavirus-based drug candidates are designed to awake precise

innate and adaptive immune responses and activate all relevant immune cell types against primary tumors and metastases. Led by experienced biotech entrepreneurs and immunology pioneers, Abalos' goal is to achieve a quantum leap in immunooncology.

Address
Postal Code/City

Address
Postal Code/City

Fon
E-Mail
Internet

Employees
Founded (year)

Address
Merowingerplatz 1 A
40225 Düsseldorf

+49 211 540104-0
info@abalos-tx.com
www.abalos-tx.com



AiCuris is focused on the discovery, research and development of novel, resistance breaking antiviral and antibacterial agents for the treatment of severe and potentially lifethreatening infectious diseases.

Marketed products:

 Prevymis® (Letermovir), a terminaseinhibitor of the human cytomegalovirus (CMV), was licensed to MSD and is approved (since 2017) in all major markets for the prophylaxis of CMV infections in bone marrow transplant recipients. Global clinical development in additional indications is ongoing.

Projects in development:

- Pritelivir, a helicase-primase inhibitor, to treat recurrent herpes simplex virus
- AIC649, a novel biological immunomodulator targeting Hepatitis B cure
- ArtilysinTM project in cooperation with Lysando targeting multi-drug resistant bacteria
 A number of early stage programs in
- A number of early stage programs in Virology and Bacteriology

Name AiCuris Anti-infective Cures AG

Address Friedrich-Ebert-Str. 475
42117 Wuppertal

Fon E-Mail Internet www.aicuris.com

Employees Founded (year)

AiCuris Anti-infective Cures AG

Friedrich-Ebert-Str. 475
42117 Wuppertal

+49 202 31763-0
info@aicuris.com
www.aicuris.com



Algiax Pharmaceuticals is a clinical-stage biotechnology company established in 2011. It is dedicated to the discovery and development of innovative products to treat diseases with a high unmet medical need. Algiax' lead candidate AP-325 is a small-molecule GABAA receptor modulator in clinical development as a therapy for neuropathic pain. The comprehensive

Phase I program has been finalized in >100 subjects and showed a good safety and tolerability profile in healthy volunteers. Our phase II clinical trial (CURE Study) is up and running. The objective of this study is to show proof-of-concept in patients with post-operative neuropathic pain. Next to AP-325 Algiax has discovered novel GABAA receptor modulator compounds called Thioacrylamide (ThAc) derivatives. The company is advancing a selection of ThAcs derivatives from its discovery to preclinical characterization.

Name Algiax Pharmaceuticals GmbH

Address Postal Code/City 40699 Erkrath

Fon Fax E-Mail Internet Employees Founded (year)

Address Mettmanner Str. 25, Geb. 9 40699 Erkrath

+49 211 617851-15 +49 211 617851-50 info@algiax.com

www.algiax.com

Employees 6 2011

Name arrows biomedical **Deutschland GmbH**

Postal Code/City

Address Heisenbergstraße 11 48149 Münster

Fon +49 251 534064-00

Fax +49 251 534064-01 E-Mail raem@arrows-biomedical.com Internet www.arrows-biomedical.com

Employees 10 Founded (year)

2005



arrows biomedical Deutschland carries out contract research and clinical routine analyses, and also pursues its own R&D projects. The firm's areas of focus are primarily in the fields of molecular oncology and neurodegenerative disease. Its portfolio of molecular analytics includes RNA/ DNA. Services like RNA/DNA isolation. microarrays(GenExpression, Array-CGH, ChIP on chip, DNA-Methylation-Microarrays). PCR (RT-qPCR, Dpca) and bioinformatics. In the area of medical diagnostics, the portfolio includes routine analysis (testing for all clinical relevant biomarkers and the complete range of blood analysis), flow cytometry (NAVIOS), HPLC analysis, diagnostic microarrays, detection of freely circulating tumor cells, and chemosensitive analysis, Furthermore, FISH analysis, general microscopy with the Zeiss axio imager M 2 in combination with the MetaSystemsSoftware and Pyro-, NGS and Sanger sequencing.

Name

attyloid GmbH

Postal Code/City

Address Merowingerplatz 1A 40225 Düsseldorf

Fon +49 211 81 10377 E-Mail info@attyloid.com Internet www.attyloid.com

Employees <10 Founded (year)

2018



attyloid is a biotech spin-off built on strong scientific expertise in protein misfolding and aggregation. We have developed an ultra-sensitive quantitative technology platform with value-adding potential as biomarker of CNS diseases and drug effect assaying, development and QC of biologicals, and counting of viral particles. attyloid is granting access to its proprietary technology as clinical and pre-clinical drug development tool, particularly as biomarker assay for de-risked pharmaceutical drug development. Furthermore, various iterations and custom-made modifications of sFIDA allow the generation of added value in each, and across all, of these R&D work packages.

In this manner, attyloid enables its collaboration partners to generate higherquality biologicals with increased reproducibility, saving time and costs for the R&D partner.

Name

BioCheck GmbH

Postal Code/City

Address Vorbergweg 41 48159 Münster

E-Mail

Fon +49 251 2150-868 office@polycheck.de Internet www.polycheck.de

Employees 27 Founded (year) 1999



The Polycheck® Platform Technology was introduced by Biocheck GmbH as a tool for medical in vitro diagnosis of allergies and autoimmune diseases. The solid phase immunoassay technology is a multiparameter test device for serological quantitative screening of disorder-specific immunoglobulins using monoclonal detection antibodies.

Biocheck GmbH offers a broad range of different Polycheck® test panels which can be performed manually or fully automated matching with central Laboratory Information Systems (LIS). Evaluation and calculation is done by picture scanning and by Biocheck Imaging Software.



Biofrontera AG is a biopharmaceutical company specializing in the development and sale of dermatological drugs and medical cosmetics. Biofrontera develops and markets innovative products for the care, protection and treatment of the skin. The company's lead product is the combination of Ameluz®, a topical prescription drug, and medical device BF-RhodoLED® for the photodynamic therapy of certain superficial

skin cancers and their precursors. Ameluz® has been marketed in the EU since 2012 and in the US since May 2016. In addition, the company markets the prescription medication Xepi™ for the treatment of impetigo in the United States. In the EU, the company also sells the dermocosmetics series Belixos®, which offers specialized care for damaged or diseased skin. Biofrontera is the first German founder-led pharmaceutical company to receive a centralized European and a US approval for a drug developed in-house. Biofrontera is listed on the Frankfurt Stock Exchange (Prime Standard) and on the US NASDAO.

Name Address
Postal Code/City

Fon Fax E-Mail Internet

Employees Founded (year)

Biofrontera AG

Hemmelrather Weg 201
51377 Leverkusen

+49 214 87632-0
+49 214 87632-90
info@biofrontera.com
www.biofrontera.com
www.biofrontera-us.com



Black Drop Biodrucker GmbH is a leading bioprinting company focused on 3D-printing of living cells. Bioprinting is a biomedical key technology that has the potential to improve medical patient treatment in multiple ways. Bioprinted tissue

analogues, such as skin, liver, or heart muscle patches offer an ideal platform for drug and toxicity screening. In the future bioprinted tissue implants could be used to maintain, restore, or substitute the function of damaged tissues. As experts in 3D-bioprinting we provide our clients with outstanding bioprinting hard- and software, highly biofunctional bioinks, and bioprinted in-vitro models.

Besides our compact 3D-bioprinter series, Black Drop SuperFill, we construct individualized bioprinting systems and develop tailored organ models.

Name Black Drop Biodrucker GmbH

Address Gasborn 41
52062 Aachen

Fon +49 173 2618 104
bioprinting@black-drop.de www.thebioprinting.com

Employees Founded (year)

Black Drop Biodrucker GmbH
52062 Aachen

10
2017



Carpegen is a provider of high quality molecular diagnostics. The company focuses on developing real-time PCR assays and point-of-care (POC) diagnostics for the diagnosis of specific infections and the detection of genetic biomarkers. Carpegen has developed Carpegen® Perio Diagnostics, a powerful real-time PCR based system

that sets new standards in microbiological periodontal diagnostics. A main objective of Carpegen's research program is to develop and out-license POC/PCR systems for diverse applications in human and veterinary medicine, as well as in food/beverage and environmental analytics. Recently, Carpegen and collaborators received a new grant funding of the German government for the development of rapid molecular diagnostics of common infections in small animals. Since 2020, Carpegen offers sensitive and specific real-time PCR diagnostics for the detection of the coronavirus disease 2019 (COVID-19).

Carpegen GmbH Name Address Mendelstr. 11 Postal Code/City 48149 Münster +49 251 980-2320 +49 251 980-2321 Fax info@carpegen.de E-Mail Internet www.carpegen.de 10 **Employees** Founded (year) 2001

Name

CFVFC Pharmaceuticals GmbH

Postal Code/City 51105 Köln

Address Gottfried-Hagen-Str. 60-62

Fon +49 221 46020-800 Fax +49 221 46020-801 E-Mail info@cevec.com Internet www.cevec.com

Founded (year) 2003



CEVEC Pharmaceuticals is a leading provider of high-performance cell technology for the manufacturing of advanced biotherapeutics. With the ELEVECTA® Technology, CEVEC offers a unique solution for large-scale production of AAV vectors using helper virus-free producer cell lines with all necessary components stably integrated into the cell. The technology is based on

suspension cells and does not require any expensive transfection reagents or cGMP plasmids. CEVEC's CAP® Technology based on human suspension cells is the ideal production platform for RCA-free Adenoviral vectors, Lentiviral vectors, viral vaccines and exosomes. With the CAP-Go® Technology CEVEC provides a solution for the production of complex recombinant and highly glycosylated protein molecules. including laminins, coagulation factors and plasma proteins.

Name

Cilian AG

Address

Johann-Krane-Weg 42 Postal Code/City 48149 Münster

Fon +49 251 6203-114 Fax +49 251 6203-116 E-Mail info@cilian.de Internet www.cilian.de

Employees 29 Founded (year)

2001



Cilian AG is a biotechnology company developing and marketing a novel expression system. The company uses a species of Ciliates, a eukaryotic single-cell organism, for the production of vaccines, monoclonal antibodies and therapeutic enzymes.

Name Creative Therapeutics **GmbH**

Address Am Rohm 86 Postal Code/City 42113 Wuppertal

Fon +49 178 7272118

E-Mail zeiler@creativetherapeutics.com Internet www.creative-therapeutics. com

Employees 2 Founded (year) 2009



CreativeTherapeutics GmbH (CT) is a privately-held biotechnology company designing innovative, tailored cancer therapeutics causing genomic and metabolic instability resulting in epigenetic changes leading to activation of the immunesystem.

CT offers collaboration to advance its lead asset CT913 through IND enabling studies to pave the way for Phase I in cancer patients.

Currently there are no approved targeted therapies of this type with such a multifaceted mode of action.

Recognizing the science-based chance to realize the vision for a much more selective and well tolerated anticancer principle CT was founded and started to realize its mission.



Cygenia is the first company to provide service on epigenetic biomarkers. Epigenetics is a new area of research that holds great potential for cellular analysis.

We have established biomarkers to characterize cell culture with regard to replicative senescence, pluripotency, cellular composition, or classification of mesenchymal stromal cells. In addition, we provide biomarkers to determine the state of aging in blood samples of mice and men.

We are experts in project design and advice you to find the best suitable biomarker for your project. We address particularly scientists and clinicians.

| Name | Cygenia GmbH |
|------------------|----------------------|
| | |
| | |
| Address | Am Alten Kalkwerk 14 |
| Postal Code/City | 52078 Aachen |
| | |
| Fon | +49 241 53108060 |
| Fax | +49 241 53108069 |
| E-Mail | w.wagner@cygenia.com |
| Internet | www.cygenia.com |
| Founded (year) | 2014 |



Detechgene is diagnostic company that develops mobile, accurate and affordable molecular Point-of-Care tests. Our vision is to provide fast and reliable pathogen detection to anyone, anywhere, without prior knowledge.

Our tests are based on isothermal amplification and can detect all kind of pathogens based on their nucleic acid. The

flexibility of the tests allows the analysis of a wide range of sample material and can be used in various medical as well as public and private areas due to the cost-effective preparation.

With its interdisciplinary expertise, Detechgene is able to cover the entire test production from sequence based test development, test tool production up to regulatory affairs. Our test portfolio aims to detect widespread pathogens as well as the detection of rare or seasonal pathogens.

| Name | Detechgene GmbH |
|------------------|--------------------|
| | |
| Address | Vitalisstraße 67 |
| Postal Code/City | 50827 Köln |
| E-Mail | info@detechgene.de |
| Internet | www.detechgene.de |
| Employees | <10 |
| Founded (year) | 2022 |



Evotec is a life science company with a unique business model focused on delivering highly effective new therapeutics to the patients. The Company leverages its multimodality platform, the "Data-driven R&D Autobahn to Cures", for proprietary projects and within a network of partners

including Pharma, Biotech, academics, and other healthcare stakeholders. Evotec operates worldwide and is headquartered in Hamburg, Germany.

Evotec's Cologne site leverages induced pluripotent stem cell (iPSC) technology for neural and cardiac drug development. This includes bulk production of differentiated cells, assay development and customised services in the context of safety / toxicology studies, *in vitro* disease modelling and drug discovery screening.

Address
Postal Code/City

Address
Postal Code/City

Address
Postal Code/City

Address
Fon
E-Mail
Internet

Employees
Founded (year)

Postal Code/City

Nattermannallee 1,
Building S20
50829 Köln

+49 221 998818-0
info@evotec.com
www.evotec.com

1993

Name

ImmunoQure AG

Postal Code/City

Address Königsallee 90 40212 Düsseldorf

E-Mail info@immunogure.com Internet www.immunogure.com

Founded (year) 2011



ImmunoQure AG is a young biotech company focusing on the research and development of human-derived autoantibodies for the treatment of common human diseases.

Through our unique access to ultra-rare APECED/APS-1 patient populations, we are able to identify patients harboring autoantibodies against naturally occurring self-proteins. The autoantibodies have

been optimized by the human immune system for functionality and are outstanding modulators of key proteins involved in e.g., inflammation and autoimmune disorders.

ImmunoQure has established a strategic partnership with Servier Laboratoires, Paris France for the development and commercialization of autoantibodies targeting Interferon-alpha for the treatment of certain human diseases.

Name InfanDx AG

Address Nattermannallee 1 Geb. S20 Postal Code/City 50829 Köln

Fon +49 221 2927-1401 Fax +49 221 2927-1490 E-Mail info@infandx.com Internet www.infandx.com

Employees 20 Founded (year)

2010



InfanDx AG is a privately held IVD company focusing on the development and commercialization of novel diagnostic solutions designed to support clinicians in the management of acute and critical care conditions in newborns.

The lead product in advanced clinical development: HypoxE® Test for early and reliable identification of Hypoxic-Ischemic

Encephalopathy (HIE) in newborns. HIE can result in life-long disabilities which can be mitigated by neuroprotective hypothermia treatment. The HypoxE® Test helps clinicians in the timely decision whether newborns require this burdensome therapy. Beyond the HypoxE® Test, InfanDx is building a pipeline of high-value diagnostic solutions for neonatal acute and critical care.

InfanDx was founded in 2010, is headquartered at BioCampus Cologne, Germany with offices in Berlin. Germany and Boston, USA.

Name

innoVitro GmbH

Postal Code/City 52428 Jülich

Address Artilleriestraße 2

E-Mail

Fon +49 2461 3170561 info@innovitro.de Internet www.innovitro.de

Employees 4 Founded (year)

2018



innoVitro is a Contract Research Organisation based in Jülich, Germany, with core competences in measurement and analysis of cellular forces - specifically cardiac contraction of human iPSC-derived cardiomyocytes.

innoVitro's FLEXcyte service is an animalfree high throughput tool for cardiac risk assessment of new drug candidates to address preclinical safety, toxicity, and efficacy concerns, but is also engaged for cell culture medium development, isogenic cell line comparison and cell line characterization.

Key feature of the FLEXcyte technology is a hyperelastic silicone membrane that substitutes rigid glass or plastic culture surfaces for the cells in a 96-well high throughput format. Membrane and human iPSC-derived cardiomyocytes form a physiological biohybrid construct that reacts like an adult human heart tissue upon compound treatment, demonstrating unprecedented physiological relevance.



The Lead Discovery Center GmbH (LDC) was founded in 2008 and is a professional drug discovery company with all required infrastructure, core competencies and disciplines operating in a fully integrated way at highest industrial standards. LDC is working closely together with a broad academic and industrial network, e.g. the Max

Planck Society, universities, pharmaceutical companies, and the Technology Transfer Fund KHAN-1.

LDC functions as facilitator to translate basic research results into professional drug discovery projects. LDC is working on a broad portfolio of early stage drug discovery projects. The indications include cancer and metabolic syndromes, neurodegenerative diseases, inflammatory disorders and infections, as well as other conditions with high, unmet clinical needs.

Name Lead Discovery Center GmbH

Address Otto-Hahn-Str. 15
44227 Dortmund

Fon Fax +49 231 9742-7000
+49 231 9742-7039
info@lead-discovery.de
www.lead-discovery.de
www.lead-discovery.de

Employees Founded (year)

100
2008



LIFE&BRAIN is a biomedical enterprise serving as commercial hub of the Uni versity of Bonn Medical Center. Integrating a unique set of expertise, we aim at delivering future-oriented services and products for disease-related research and the development of novel therapies with a focus on neurological and neuropsychiatric diseases.

Within our business divisions Cellomics, Genomics and Electrophysiology Services we provide human stem cell-based cell culture systems and services for neurological disease modelling and compound development, genome and gene expression analysis, electro-physiology services to characterize small molecules in target engagement, efficacy and potency in human and rodent models.

Life & Brain GmbH Name Venusberg-Campus 1 Address Gebäude 76 53127 Bonn Postal Code/City +49 228 6885-100 +49 228 6885-101 E-Mail info@lifeandbrain.com Internet www.lifeandbrain.com Employees 35 Founded (year) 2002



Matricel GmbH develops and produces innovative medical class III collagen implants and biomatrices for applications in medicine and biotechnology.

Matricel's proprietary technologies are the key to successfully produce biocompatible and biodegradable matrices in a wide range of modifications suitable for the cultivation with human cells in tissue engineering and regenerative medicine. The products serve different medical fields like ACI-Maix and Cartimaix for tissue engineering of articular cartilage and other orthopedic applications and Remaix as a dental membrane for guided bone regeneration.

Matricel's product Optimaix is dedicated for research in 3D cell culture. Matricel has a promising product pipeline in further medical fields like dermal and nerve regeneration with customized scaffolds.

Name Matricel GmbH

Address Kaiserstr. 100
52134 Herzogenrath

Fon +49 2407 5644-0
info@matricel.com

Employees Founded (year)

Internet www.matricel.com

apployees 40
ed (year) 2001

Name MLM Medical Labs GmbH

Postal Code/City

Address Dohrweg 63 41066 Mönchengladbach

Fon +49 2161 4642100 Fax +49 2161 4642190 E-Mail info@mlm-labs.com Internet www.mlm-labs.com

Employees 150 Founded (year) 1993



MLM Medical Labs is a leading specialty and central laboratory with comprehensive research services and diagnostic capabilities in Europe and North America. Offering standard and fully customizable analytical services across a variety of therapeutic areas, the team of over 150 employees adds value and expertise at every stage of the drug development

process, from nonclinical and preclinical through phase IV clinical trials. Over the last three decades MLM has supported over 2000 clinical trials worldwide. Core service areas include central lab services such as safety and biomarker testing in Europe & US, kit building and sample logistics, as well as pharmacology and efficacy studies for preclinical research and histopathology services. All services are complemented by a superior IT infrastructure, global project management and high quality standards.

Name

MukoCell GmbH

Address Otto-Hahn-Straße 15 Postal Code/City 44227 Dortmund

E-Mail info@mukocell.com Internet www.mukocell.com

Employees 12 Founded (year)

Fon +49 231 97 42 63 70 Fax +49 231 97 42 63 71

2013



MukoCell GmbH, a pharmaceutical company with headquarters in Dortmund and Bochum / Germany, has developed an innovative and gentle method for the surgical repair of urethral strictures. Using an autologous cell transplant (Mukocell®), the patient's own cells are used for treating the patient's urological disease. The replacement tissue emerged from the company's own research and development and is the

first tissue engineering product in the urology field worldwide that is based on the patient's own cells. Last year, MukoCell GmbH built one of the most modern GMP manufacturing facilities on the university campus in Bochum.

MukoCell is also a contract manufacturer in the field of cell therapy and enables start-up companies to clinically develop products under GMP conditions.

Name Myriad International GmbH

Address Nattermannallee 1

Geb. S19 Postal Code/City 50829 Köln

Fon +49 221 669561-13 Fax +49 221 669561-99 E-Mail info@myriadgenetics.de Internet www.myriadgenetics.eu www.endopredict.eu

Employees 26 Founded (year) 2010

www.prolaris.com



Myriad International GmbH in Cologne is part of the Myriad Genetics group of companies, a global leader in molecular diagnostics. We develop and distribute molecular pathological in-vitro-diagnostic tests with the aim of improving individual

therapy selection for oncological diseases through precise diagnostics.

Our team is highly committed to the development of diagnostic tests, using advanced technologies, to provide patients with personalized medicine and support.



NEUWAY Pharma is developing an entirely novel class of biotherapeutics built around its proprietary Engineered Protein Capsules (EnPC®), which can cross the bloodbrain barrier and deliver transformative neuropharmaceuticals for the treatment

of disorders of the central nervous system (CNS).

The company aims to be the partner of choice for antibody and mRNA drug developers who need to overcome the current hurdles of delivering these and other drug modalities into the brain and CNS tissue.

Operating as a drug developer and a delivery expert, NEUWAY will demonstrate and exploit the value of its technology through its internal rare disease pipeline for indications with a high unmet medical need as well as partnered programs.

Address
Postal Code/City

Fon
E-Mail
Internet

Employees
Founded (year)

NEUWAY Pharma GmbH

In den Dauen 6A
53117 Bonn

+49 228 522798-0
info@neuway-pharma.com
www.neuway-pharma.com



Oncimmune, a global leader in immune biomarker discovery and immunodiagnostics is focused on autoantibody biomarker profiling in immuno-oncology, autoimmune and infectious diseases. Through its ImmunoINSIGHTSTM technology platform, the company provides key insights to discover and validate novel biomarkers, improve treatment responses and adverse event (irAE) prediction, patient screening

and diagnostic accuracy. Oncimmune is headquartered in the UK with operations in UK, Germany and USA.

Name Oncimmune Germany GmbH

Address Postal Code/City 44227 Dortmund

Fon +49 231 9742-6300 +49 231 9742-6301 info.do@oncimmune.com www.oncimmune.com

Founded (year) 1997



PAION AG is a publicly listed specialty pharmaceutical with innovative drugs. PAION's lead compound is remimazolam, a sedative/anesthetic.

In addition, PAION markets two intensive care products in selected European countries. Angiotensin II (GIAPREZA®), a vasoconstrictor indicated for the treat-

ment of refractory hypotension in adults with septic or other distributive shock, and eravacycline (XERAVA®), a novel fluorocycline antibiotic indicated for the treatment of complicated intra-abdominal infections in adults.

PAION's mission is to be a leading specialty pharmaceutical company in the fields of anesthesia and critical care by bringing novel products to market to benefit patients, doctors and other stakeholders in healthcare.

Address
Postal Code/City

Fon
Fax
E-Mail
Internet

Employees
Founded (year)

Paion AG

Heussstr. 25
52078 Aachen

+49 241 4453-152
+49 241 4453-523
info@paion.com
www.paion.com

50
2000

Name Priavoid GmbH Address Merowingerplatz 1a Postal Code/City 40225 Düsseldorf Fon +49 211 942 522 98 Fax +49 211 942 522 99 E-Mail info@priavoid.com Internet www.priavoid.com Employees 14 Founded (year) 2017

PRI/VOID

Priavoid is developing disease-modifying therapies for patients with severe neurological disorders like Alzheimer's dementia (AD).

The proprietary development candidates are based exclusively on D-enantiomeric amino acids (D-peptides) and therefore suitable for oral drug administration as capsules or tablets. Priavoid's most advanced compound PRI-002 for the treatment of

AD acts via a novel mechanism of action. Aß peptides play a crucial role in AD. Aß monomers can assemble to form toxic oligomers that replicate in a prion-like manner. PRI-002 is the first drug substance that acts as an anti-prionic in animals and is safe in humans.

The new mechanistic principle of direct dissolution of toxic oligomers can be applied to other neurodegenerative diseases. Priavoid advances several programs at different stages of pharmaceutical development.

Name

QIAGEN GmbH

Address Postal Code/City

Oiagen Str. 1 40724 Hilden

Fon +49 2103 29-0 Fax +49 2103 29-22000 E-Mail pr@qiagen.com Internet www.qiagen.com

Founded (year)

Employees 6,100 worldwide 1984



QIAGEN is the leading global provider of Sample to Insight solutions that enable customers to gain valuable molecular insights from samples containing the building blocks of life. Our sample technologies isolate and process DNA, RNA, and proteins from blood, tissue and other materials. As-

say technologies make these biomolecules visible and ready for analysis. Bioinformatics software and knowledge bases interpret data to report relevant, actionable insights. Automation solutions tie these together in seamless and cost-effective workflows.

QIAGEN provides solutions to more than 500,000 customers around the world in Molecular Diagnostics (human healthcare) and Life Sciences (academia, pharma R&D and industrial applications, primarily forensics). Further information can be found at http://www.giagen.com.

Name

OITHERA GmbH

Postal Code/City

Address Talstraße 14 52525 Heinsberg

E-Mail info@githera.com Internet www.githera.com

Founded (year) 2012



Oithera, Germany, is a "Business Angel Boost" that was founded by Prof. Edgar Dahl (RWTH Aachen University) together with experienced biotech experts of the BIO.NRW network.

The company is developing innovative drugs to suppress tumor progression and metastasis with the goal to improve

survival of cancer patients. Qithera's R&D is based on new molecular findings from RWTH research and is implemented in close collaboration with the Hospital of RWTH Aachen University.

By addressing internally validated target molecules that are known to abrogate aggressive characteristics of cancer (stem) cells, Oithera is currently characterizing pharmacologically active compounds that suppress tumor spreading. The first indication of choice is a clinical important subset of bladder cancer whose disease management has been stagnant for decades.



Based on the leading proteasome expertise of Nobel laureate and company co-founder Prof. Robert Huber and collaboration between the Lead Discovery Center GmbH, Max Planck Society and Qurient Co. Ltd. QLi5 has established a versatile platform for the design of proteasome inhibitors with outstanding selectivity, unique non-covalent binding characteristics and favourable

pharmacodynamic properties for multiple indications. A successful Series A financing secures promoting the pipeline into the clinics.

Address
Postal Code/City

Fon
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Internet

Address
Postal Code/City

Address
44227 Dortmund

+49 231 9742 7000
huber@qli5tx.com
www.qli5tx.com
2020



The Soluventis-platform is a powerful drug delivery system, an entirely new type of Nanocarrier characterized by high efficacy and a good safety profile.

The Soluventis Nanocarrier shields transported siRNA or other oligonucleotides from blood and immune system and reaches reliably target organs including poorly vascularized tumor tissue. The ac-

tive substance is loaded into the liver and into tumors in comparable concentrations.

The targeting of metastases is excellent. The frozen ready-to-use Nanocarrier has a long shelf life in ampoules whereas in the organism it is completely eliminated within two days.

Soluventis has a portfolio of oncologic siRNAs and has experience with different drug candidates of customers. This novel drug delivery system opens the door to therapeutic oligonucleotides and we are facing the first clinical studies.

Name Soluventis
Nanotherapeutics GmbH

Address
Postal Code/City

Fon
Fax
E-Mail
Internet

Nanotherapeutics GmbH

44799 Bochum

+49 234 32 29125
+49 234 32 14191
soeren.schreiber@
soluventis.de
www.soluventis.com

Founded (year)

2018



Syntab Therapeutics is committed to the exploration und development of innovative drugs against severe diseases such as cancer. Syntab's Immune System Engagers (ISErs) exhibit all desirable properties of conventional antibodies while, at the same time, being significantly smaller, chemically accessible molecules.

The company strives for the early outlicensing of product candidates. Syntab's platform technology enables the chemical synthesis of highly effective drugs for immuno-oncology. The flexibility of the technology is based on the application of highly specific binders against cell surface proteins. Furthermore, the technology has the potential to vary the number and specific properties of binders and effectors within the ISEr molecules. The effector part activates the patients' immune system with strong efficacy.

Name Syntab Therapeutics GmbH

Address St.-Jobser-Straße 56
52146 Würselen

Fon E-Mail info@syntab-therapeutics. com www.syntab-therapeutics. com

Founded (year) 2010

Name Tranquil Immune GmbH

Address c/o Life Science Inkubator

GmbH

In den Dauen 6a

Postal Code/City 53117 Bonn

E-Mail hennes@tranguil-immune.

Internet https://tranguil-immune.

Fon +49 172 2975497

com

<10 Employees Founded (year) 2022



Tranquil Immune's mission is to provide the first immediate therapeutic and causal intervention for relapses of autoimmune diseases such as multiple sclerosis (MS) and Crohn's disease by suppressing pathogenic T-cell activation based on Dr. Thomas Harder's in vitro T-cell silencer modeling experiments.

Tranquil Immune is supported by the Life Science Incubator (LSI) in Bonn, represented by Dr. Jörg Fregien, which has been accompanying life science ideas in their development to financing and market maturity since 2008. Tranquil Immune operates its laboratories at the Gründerund Technologiezentrum Rheinbach and in cooperation with the Bonn Rhein-Sieg University of Applied Sciences (Prof. Dr. Martin Sieber).

Name

Transimmune AG

Postal Code/City

Address Königsallee 90 40212 Düsseldorf

Fon +49 211 6413 6110 Fax +49 211 8693 1614 E-Mail info@transimmune.de Internet www.transimmune.com

Founded (year) 2012



Transimmune AG is developing novel immunotherapies based on its unique understanding of the physiologic processes underlying the activation of antigen presenting cells. This understanding derives from nearly 30 years of research into the mechanism of action behind Extracorporeal Photopheresis (ECP), arguably the first FDA-approved cellular immunotherapy. ECP is a highly successful immunological treatment used for many years, mainly in cutaneous T cell lymphoma (CTCL), graft versus host disease (GVHD) and organ transplant rejection. Transimmune has created two core technologies; Transimmunization and Transtolerization. These involve protocols for manipulating the immune system that have been reduced to practice through our mouse-to-man development platform, generating compelling preclinical proof-of-concept data. These technologies have the potential to significantly enhance current ECP practice as well as drive its application more broadly into numerous other indications.

Name

UGISense AG

Address Otto-Hahn-Straße 15 Postal Code/City 44227 Dortmund

Fon +49 231 97427063 E-Mail contact@ugisense.com Internet www.ugisense.com

Employees 2 Founded (year) 2016

UGISense

UGISense AG is a biotech company developing Ugimers™, a new type of PNA-based antisense drugs.

Based on a strong IP protection, Ugimers™ solve the challenging problems that antisense products have faced: delivery, stability and toxicity. In addition, the chemical structure also allows a rational design with regard to modifications, e.g. amphiphilicand customizable PK-properties and the addition to homing tags/peptides. Through these capacities, Ugimers™ can address the specific requirements of envisaged targets.

UGISense places its main focus on oncology, planning the in-house development into clinical stages in this area, but has also established projects in the field of metabolic diseases, muscular dystrophies and peripheral neuropathies.



X-ZELL is an award-winning medical technology start-up specialising in next-generation cytology.

Designed to slot seamlessly into clinical routine, X-ZELL's patented Cryoimmunostaining™ technology fuses multi-channel immunostaining with digital imaging to provide an efficient, highly scalable alterna-

tive to conventional immunohistochemical (IHC) staining.

Reimbursable in Germany under EBM and GoÄ, it does not require complex specimen preparation such as cytoblocking and introduces a new, digital evaluation system to reduce the average time from sample to diagnosis from 48h to less than 4h.

X-ZELL is headquartered in Singapore and has regional offices in Germany (Europe), Thailand (Southeast Asia) and the US (North America).

| Name | X-ZELL Biotech GmbH |
|-----------------------------|-----------------------------------|
| Address | Bielefelder Str. 62 |
| Postal Code/City | 57368 Lennestadt |
| E-Mail Internet | info@x-zell.com www.x-zell.com |
| Employees Founded (year) | 24 2014 |



Industrial biotechnology



b.fab turns CO₂ into value-added products. We are specialized in C1 Bioeconomy and use CO₂ as our feedstock. In a first step, we efficiently convert CO₂ into formate with an electrolyzer. In a second step, formate is used in a bioprocess which converts

formate into value-added chemicals, feed proteins and biofuels. We apply Synthetic Biology to engineer microbial cell factories for production of specific products. Our technology platform is built on anaerobic and aerobic microbial cells to provide flexibility in the process design and adaptation to specific product requirements. b.fab offers pathway design, strain engineering, process development and technology licenses to its customers from the chemical, cosmetic, feed and energy industry. b.fab is strongly dedicated to establish the C1 Bioeconomy in the coming years.

b.fab GmbH Name Address Gottfried-Hagen-Straße 60 Postal Code/City 51105 Köln Fon +49-221-56092741 E-Mail info@bfab.bio www.bfab.bio Internet **Employees** 5 Founded (year) 2018



bitop is a global market leader and expert in the biotechnological production and development of extremolytes.

Extremolytes are natural molecules, which protect biological structures. They are found inside of extremophilic plants and microorganisms. Protected by extremolytes,

these fascinating living beings can thrive in the harshest habitats one can imagine: salt lakes, deserts, hot springs, the arctic ice or deep sea.

With 30 years of experience and passion in biotechnological manufacturing of 100% natural extremolytes, bitop is a reliable supplier for the pharma, consumer healthcare, cosmetics and life science industry. Furthermore we develop unique, extremolytebased OTC medical devices for various applications and indications including allergy, dry eye, woman's health, dermatology, or airway diseases.

Name bitop AG Address Carlo-Schmid-Allee 5 Postal Code/City 44263 Dortmund +49 231 98 77 44-0 Fax +49 231 98 77 44-10 E-Mail info@bitop.de Internet www.bitop.de **Employees** 70 Founded (year) 1993



BSV BioScience GmbH was founded in Oct. 2007 in Baesweiler, near the historical city of Aachen. Since June 2010, the company manufactures and markets biological pharmaceutical active ingredients for different therapeutic areas.

One of our key strengths is based on the production of fertility hormones, being sup-

plied either as API or finished injectables, in co-operation with an also GMP approved German license manufacturer. Our main products are:

- Human Chorionic Gonadotrophin (HCG),
- Human Menopausal Gonadotrophin (HMG),
- Follicle Stimulating Hormone (FSH),
- Urokinase (UK), Streptokinase and Ulinastatin (UTI).

BSV BioScience GmbH is focused on different R&D activities, continuously pursuing improvements in the field of API's and finished dosage forms.

BSV Bioscience GmbH Name Address Max-Planck-Strasse 12 Postal Code/City 52499 Baesweiler +49 2401 8047-10 +49 2401 8047-198 Fax office@bsvbio.de E-Mail www.bsvbio.de Internet 40 **Employees** Founded (year) 2007

Name

Cysal GmbH

Postal Code/City

Address Mendelstraße 11 48149 Münster

Fon +49 251 980 2490 Fax +49 251 980 2499 E-Mail info@cvsal.de Internet www.cysal.de

Employees 5 Founded (year)

2012



The innovative biotechnology company Cysal GmbH was founded as a spin-out of the University of Münster, Germany.

Cysal focuses on the production of novel biomaterials in the area of biopolymers. peptides, amino acids, and dipeptides on an industrial scale at unprecedented lowcost, and also develops application fields

for these biomaterials to serve humans and animals. Cysal's business strategy aims at out-licensing its technology platform to interested companies and/or offering its raw materials for incorporation into consumer products for various markets.

The main target markets are those for energy food additives and sport nutrition, cosmetics and skin care, dental hygiene, clinical nutrition, immunomodulation. impotence and infertility, as well as in the area of animal feed production, especially for aquaculture.

Name Enzymaster Deutschland **GmbH**

Address Postal Code/City

Neusser Str. 39 40219 Düsseldorf

Fon +49 211 15821610 Fax +49 211 15821612 E-Mail info@enzymaster.de Internet www.enzymaster.de

Employees 6 Founded (year)

2018



Enzymaster provides a one-stop solution for the development and commercialization of innovative and sustainable enzyme catalysis technologies. With our proprietary BioEngine® platform and longterm experience, we offer R&D services combined with establishment of complete technology transfer packages, and manufacturing collaborations to fine chemical. pharmaceutical, and other industries. Our portfolio includes enzyme panel screening, smart enzyme engineering, process development, enzyme preparation by fermentation, and biocatalytic manufacturing.

Enzymaster Deutschland GmbH, a subsidiary of Enzymaster (Ningbo) Bio-Engineering Co. Ltd., represents your partner in the international market for enzyme applications and products manufactured by biocatalytic processes. Green Magic Happens Here!

Name

evoxx technologies GmbH

Postal Code/City

Address Alfred-Nobel-Str. 10 40789 Monheim am Rhein

E-Mail

Fon +49 2173 4099 40 Fax +49 2173 4099 440 contact@evoxx.com Internet www.evoxx.com

Employees 25 Founded (year) 2006



evoxx technologies GmbH, a German Industrial Biotechnology Company, is focusing on the development and production of industrial enzymes. As European subsidiary of the global enzyme manufacturer Advanced Enzymes Technologies Ltd. a comprehensive product portfolio of enzymatic solutions for human nutrition, animal nutrition, bio-processing and pharma industries is offered. Product development is based on the proprietary technology platform covering the whole value chain from early enzyme and process development to industrial scale production and product deregulation.

evoxx industrial partners and customers benefit from the unique metagenomics libraries, the enzyme development skills and tech-transfer and production capabilities, evoxx is located on the Creative Campus in Monheim am Rhein.



GEN-IAL GmbH is a specialist laboratory for DNA based food and feed analyses. GEN-IAL offers services and kits for GMO-, allergene- and animal identity analyses as well as bacteria- and yeast detection and differentiation. We offer training in PCR, contract research, several kits for DNA-extraction, PCR-kits for beer/wine spoilage bacteria and yeast, pathogenes, geneti-

cally modified organism (GMO), allergenes, plant and animal-identity. The laboratory is accredited (DIN EN ISO/IEC 17025) and official cross checking laboratory. We are member in the German official working group for method development for GMO detection and quantification. We are an approved laboratory for the German VLOG (Verband Lebensmittel ohne Gentechnik e.V.) for GMO-free labeling.

New: Capturing of microorganism by polymer technology.

| Name | GEN-IAL GmbH |
|------------------|-------------------|
| Address | Heuserweg 13-15 |
| Postal Code/City | 53842 Troisdorf |
| Fon | +49 2241 252-2980 |
| Fax | +49 2241 252-2989 |
| E-Mail | info@gen-ial.de |
| Internet | www.gen-ial.de |
| Employees | 10 |
| Founded (year) | 1998 |



multiBIND develops innovative disinfection and decontamination solutions for research and healthcare. Core technology are two patent pending solution systems to generate new disinfectants and decontamination agents with high antimicrobial activity efficacy especially against all viruses including coronavirus. Currently bioDECONT® is the only agent that in addition to the effective killing of microorganisms also accomplishes safe and complete elimination of genetic material (DNA/RNA) to avoid cross-contaminations in PCR analysis and DNA testing. Besides its high antimicrobial activity and decontamination properties, bioDECONT® is nontoxic for humans, noncorrosive and free of alcohols or other hazardous chemicals. multiBIND pursues a partnering strategy and respective products are on the markets of the EU, USA and China.

| Name | multiBIND biotec GmbH |
|------------------|----------------------------|
| Address | Gottfried-Hagen-Str. 60-62 |
| Postal Code/City | 51105 Köln |
| Fon | +49 221 2780-211 |
| Fax | +49 221 2780-213 |
| E-Mail | info@multibind.de |
| Internet | www.multibind.de |
| Employees | 3 |
| Founded (year) | 2005 |



Numaferm revolutionizes the world of biomanufacturing. With the high-titer peptide and protein (so-called "peptein") production platform Numatech™, we overcome existing challenges: long development times, high development costs and low product purities. As a service provider (CRO/CDMO), we support our partners from the discovery

to commercial supply in the multi-ton scale. This enables innovations – in time, at highest quality and competitive costs. Our mission is to unlock the power of peptides and proteins and be market-standard for a broad range of industries - in a sustainable way. Numaferm is a VC backed company located in Duesseldorf, Germany, with a facility of 600m² and a team of 30 experts.

| Name | NUMAFERM GmbH |
|------------------|--------------------|
| Address | Merowingerplatz 1a |
| Postal Code/City | 40225 Düsseldorf |
| Fon | +49 211 975 32900 |
| E-Mail | info@numaferm.com |
| Internet | www.numaferm.com |
| Employees | 30 |
| Founded (year) | 2017 |

Name

OligoScience Biotechnology GmbH

Postal Code/City

Address Siemensstraße 42 59199 Bönen

Internet

Fon +49 2383 919-293 E-Mail info@oligoscience.de www.oligoscience.de

Employees 11 Founded (year)

2017



OligoScience Biotechnology - Healthy Life Inspired by Nature

OligoScience Biotechnology GmbH was founded in 2017 with the vision to improve the health of humans and animals by producing human milk oligosaccharides (HMOs) which support the immune system and a healthy intestinal flora. Based on innovative and proprietary technologies. OligoScience aims to become one of the world's leading providers of functional HMOs with strategic partners. The business goal is, thus, the development of efficient production processes for specific HMOs in a large scale with appropriate cost for the use as bioactive, functional natural products.

Name

Phytowelt GreenTechnologies GmbH

Address Postal Code/City 41334 Nettetal

Fon +49 221 669 639-03

Employees 30 Founded (year)

Kölsumer Weg 33

Fax +49 221 669 578-361 E-Mail contact@phytowelt.com Internet www.phytowelt.com

1998



Phytowelt operates industrial plant biotechnology to help unleashing the potential of plants. It is a leading provider for the identification and expression of genes encoding plant enzymes. These enzymes offer new possibilities for industrial fermentation, targeting fatty acids, terpenoids and plant P450 enzymes. Additionally,

Phytowelt offers solutions in plant breeding to improve plants by protoplast fusion, genome editing and double haploid production. Like this for example biomass and secondary metabolite production can be optimized.

A big poplar collection for biomass production combined with a unique fermentation process for terpenes in E.coli, especially carotenoids, is a big success factor and USP for Phytowelt. The raspberry flavour, R-Alpha-Ionone is Phytowelt's first fermentatively produced product and on the market available product.

Name

SenseUP GmbH

Address

Campus Forschungszentrum 52428 Jülich

Postal Code/City

Fon +49 2461 615529 E-Mail info@senseup.de Internet www.senseup-biotech.com

Employees 14 Founded (year) 2015



Using their novel natural evolution technology, SenseUp has developed powerful and universal production platforms for proteins and peptides, as well as RNA. These platforms are quickly adaptable to a huge number of individual products for different applications and markets, such as pharma, food, and crop science.

We have now started developing a range of innovative RNA products based on microbial fermentation using SenseUP's patented Corynebacterium and natural evolution technology and addressing animal health and crop protection. The aim is to develop sustainable and effective commercial products that are ready for industrial-scale production at low cost and can be launched in the years to come in cooperation with strategic industrial partners.



tous fungi, where the company has a many years experience and substantial Know How.

Senzyme GmbH Name Address Gierlichsstr. 6 Postal Code/City 53840 Troisdorf +49 2241 9715-2000 Fax +49 2241 9715-2499 E-Mail info@senzvme.de www.senzyme.de Internet **Employees** 42 Founded (year) 2000

Senzyme GmbH develops and produces technical enzymes and functional feed materials for the bioenergy and animal nutrition markets.

The production process is based on solid-state-fermentation using filamen-



Quality Enzyme Solutions

SeSaM-Biotech is dedicated to the directed evolution of enzymes. With our comprehensive KnowVolution strategy we help companies from biotech and pharma with their enzyme developments. We provide the best combination of top-of-the-line

mutagenesis technologies and rational design by computational modelling and simulation to successfully increase your enzyme's performance.

SeSaM-Biotech tunes enzyme properties like activity, thermal resilience, protease resistance, solvent/pH stability, and substrate/product inhibition. The track record of 10 years of successful protein engineering includes enzymes of all classes for the biotechnological sectors pharma, chemistry, cosmetics, flavors, nutrients, feed, laundry, food/beverages, biofuel, textiles and paper.

Name SeSaM-Biotech GmbH

Address Postal Code/City Fon E-Mail Internet Founded (year)

SeSaM-Biotech GmbH

Forckenbeckstraße 50
52074 Aachen

+49 241 93856979
info@sesam-biotech.com
www.sesam-biotech.com



Agrobiotechnology



It is estimated that plant pathogens are responsible of world-wide losses in the range of billions of euros per year. Therefore, there is a strong need to provide effective. broad range and environmentally friendly approaches to ensure protection of plantsfrom pathogens. We developed a platform based on antibody fusions which ensures plant protection from fungal and bacterial infections. This alternative approach for controlling plant pathogens and parasites aims at minimising the costs for cultivation of crops thereby reducing the toxic effects of pesticides and toxins for human beings.

AgroProtect GmbH offers its technology know-how and the generation of pathogen resistant plants.

AgroProtect GmbH Pfarrer-Holzberg-Straße 20 Postal Code/City 52511 Geilenkirchen +49 2451 914 8783 +49 2451 914 8784 info@agroprotect.de www.agroprotect.de Founded (year) 2010



BexBioTec is engaged in plant-systemdiagnostics. Our unique laboratory test system evaluates the effects of various plant treatments, such as biostimulants. Plant performance is influenced by versatile parameters. In our test setup we control these parameters and evaluate

their influence on growth, yield fruit quality and stress tolerance (abiotic and/ or biotic). We offer classic plant growth assays combined with new bioanalytical technologies, in order to unterstand what happens in the plant. Thus, we provide data in exceptionally short time helping you to identify interesting candidate substances for further studies, new projects and to accelerate the market entry of new products.

Bex-Biotec GmbH&Co.KG Siemensstr. 42 Postal Code/City 59199 Bönen +49 2383 919270 info@bex-biotec.com www.bex-biotec.com 2018



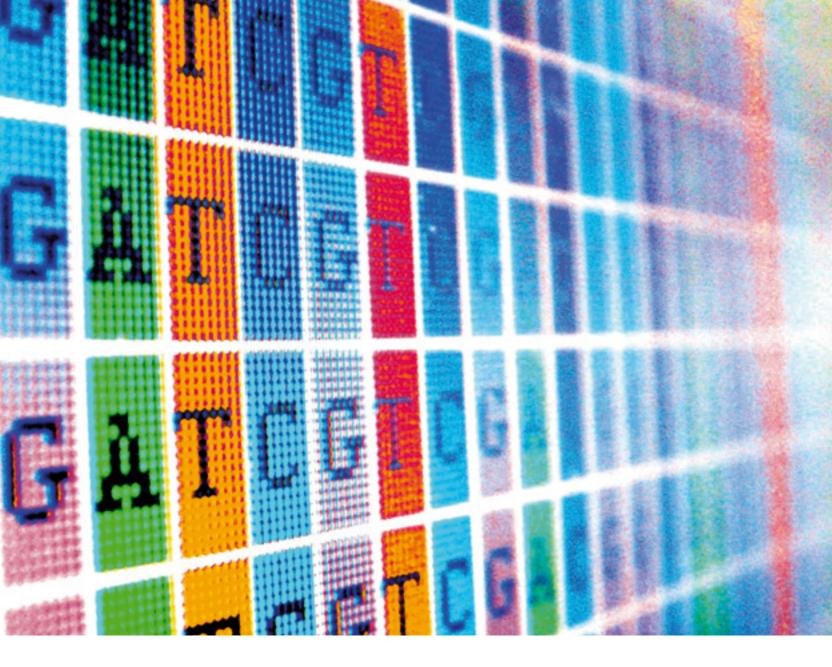
Saaten-Union Biotec offers services and contract research in the field of plant breeding. The development of new varieties of cereals, rapeseed and other crops is strongly build upon innovation.

Application of tissue culture technologies (doubled haploids, embryo rescue) and molecular marker applications are routinely used in a wide range of crops and for a significant number of breeding traits. Saaten-Union Biotec takes part in various scientific research and development projects to follow the latest scientific developments and to constantly optimize our service.

Saaten-Union BIOTEC Postal Code/City

Employees 80

GmbH Address Hovedisser Str. 94 33818 Leopoldshöhe +49 5208 95971-0 Fax +49 5208 95971-96 E-Mail service@saaten-unionbiotec.de Internet www.saaten-unionbiotec.de 1984



Bioinformatics



BioSolveIT visualizes drug discovery. Our fast and easy-to-use software enables every chemist to advance their research. Perceptive visualization helps you to understand computational results at a glance. We believe in full transparency, and all the science behind our software is published.

Our trusted platforms SeeSAR and infiniSee support you in structure-based and ligand-based drug discovery and inspire you with new, vivid ideas. We are passionate about the needs of our customers and live this through the discovery services we offer. Working together with users in this way helps us to stay at the forefront of current research, addressing the questions that chemists are interested in right now. We aspire to develop software that is indispensable to drug discovery and, more importantly, software that is a pleasure to use every day.

Address
Postal Code/City

Fon
Fax
E-Mail
Internet

Employees
Founded (year)

An der Ziegelei 79
53757 Sankt Augustin

+49 2241 25250
+49 2241 25255-25
contact@biosolveit.de
www.biosolveit.de
25
2001



In order to successfully treat the infected patient, you have to recognise and diagnose most reliably the infecting microbe.

Noscendo GmbH, a Duisburg (Germany) based molecular diagnostics company,

changes the way infection causative microbes are identified. Introducing a paradigm shift using proprietary algorithms and software harnessing next generation sequencing of cell free nucleic acids isolated from patient samples Noscendo brings the concept of liquid biopsy into the field of infectious diseases.

Noscendo's software solution is capable of differentiating infection from non-infectious signals and thereby aiding intensive care clinicians in their daily task to find the right decisions, enabling a targeted and successful treatment in an actionable timeframe.

Address Postal Code/City Königstr. 34 47198 Duisburg +49 2066 50687 80 info@noscendo.com www.noscendo.com www.noscendo.com Cemployees Founded (year) 2017



Resolve Biosciences is applying the power of Molecular Cartography[™] to enable scientists to gain new insights based on the highest-resolution view of spatial biology. The platform features the company's proprietary single-molecule detection technology, which

offers three-dimensional spatial context at subcellular resolution in a fully automated workflow that preserves the sample tissue. The Molecular Cartography technology delivers unparalleled sensitivity and specificity that helps researchers detect individual transcripts and rare signals to interpret fundamental biology and rapidly advance the understanding of complex biological questions in critical fields such as oncology, neuroscience, infectious disease, and agriculture. Resolve Biosciences is based in Monheim am Rhein, Germany, with a North American laboratory in the United States.

Name Resolve BioSciences GmbH

Address Postal Code/City Gebäude A03
Alfred-Nobel-Str. 10
40789 Monheim am Rhein

Fon E-Mail Internet H49 2173 2975-200
info@resolvebiosciences.com
www.resolvebiosciences.com

Employees Founded (year)

80
2020

| Name | Ridom GmbH |
|------------------|-------------------|
| Address | Mendelstr. 11 |
| Postal Code/City | 48149 Münster |
| Fon | +49 251 490931-50 |
| Fax | +49 251 490931-51 |
| E-Mail | info@ridom.de |
| Internet | www.ridom.de |
| Employees | 4 |
| Founded (year) | 2003 |



The Ridom GmbH (Münster, Germany) was founded January 2003. The company develops software for DNA re-sequencing analysis for physicians and epidemiologists on routine basis. The company has in the meantime by its software products a well-recognized name in the field of sequence based microbial typing; e.g., every European National Health System

Authority (e.g., RKI, RIVM, HPA, Serum Statens) has bought in the last 10 years and is using since then at least one software product from Ridom. Ridom has pioneered typing efforts with a software tool for Staphylococcus aureus. The company has developed and maintains the worldwide largest sequence-based microbial typing database (Ridom SpaServer). The SPA typing software Ridom StaphType is currently used by approximately 400 users in 36 different countries worldwide. The new Ridom SeqSphere+ software provides a bacterial typing solution for any bacteria, any study type, any lab.





Other biotechnologically active companies



Bayer is a global enterprise with core competencies in the life science fields of health care and nutrition. Its products and services are designed to benefit people by supporting efforts to overcome the major challenges presented by a growing and aging global population. At the same time, the Group aims to increase its earning

power and create value through innovation and growth. Bayer is committed to the principles of sustainable development, and the Bayer brand stands for trust, reliability and quality throughout the world.

In fiscal 2020, the Group employed around 100,000 people and had sales of 41.4 billion euros. Capital expenditures amounted to 3.138 billion euros, R&D expenses to 4.884 billion euros. For more information, go to www.bayer.com.

| Name | Bayer AG |
|------------------|------------------------|
| | |
| Address | Kaiser-Wilhelm-Allee 1 |
| Postal Code/City | 51368 Leverkusen |
| Fon | +49 214 30-1 |
| Internet | www.bayer.com |
| Employees | 100,000 |



CELLEX – YOUR PARTNER FOR CLINICAL AND COMMERCIAL SUPPORT

Cellex offers a full portfolio of services around Cell and Gene Therapy for research, clinical and commercial use. Our company has experience in providing most different starting materials, GMP manufacturing of autologous and allogeneic cell types, for instance for CAR-T technologies.

Cellex apheresis centers have all techniques for collection of different cell products from healthy donors for clinical use, research or commercial purposes; moreover autologous collections can be performed. Cellex runs its own data base "Cell Community" with many different types of donors willing to support research. In our state-of-the-art GMP-facility, cellular subsets can be separated, genetically modified, analyzed and frozen.

| Name | Cellex Cell Professionals GmbH |
|-----------------------------|--|
| Address Postal Code/City | Melli-Beese-Straße 9-11 50829 Köln |
| E-Mail Internet | businessdevelopment@ cellex.me www.cellex.me |
| Employees Founded (year) | 153 2001 Dresden 2009 Köln |



Deutsche Saatveredelung AG is an international plant breeding company with headquarters in Germany. The main focus is on research and development in breeding and seed production for different crop plant species.

Our major products include rapeseed, wheat, barley, corn/maize, pasture and

turf grasses, and different intercrop species. Breeding is run on nine breeding stations in Europe and two in Canada. We are dedicated to our purpose: Innovation for your growth. Seed of new varieties is produced and processed mostly in Europe and sold world-wide.

In the framework of several cooperations in breeding, production, marketing and sales DSV is partner of several competitive enterprises on the national and international level. Presently, DSV Group employs around 600 people and has a turnover of around EUR 200 million.

| Name | Deutsche Saatveredelung AG (DSV) |
|------------------|-------------------------------------|
| Address | Weissenburger Straße 5 |
| Postal Code/City | 59557 Lippstadt |
| Fon | +49 2941 296-0 |
| Fax | +49 2941 296-100 |
| E-Mail | info@dsv-saaten.de |
| Internet | www.dsv-seeds.com |
| Employees | 600 |
| Founded (year) | 1923 |

other **BIO.NRW**

Name Evonik Industries AG Address Rellinghauser Str. 1-11 Postal Code/City 45128 Essen Fon +49 201 177 01 Fax +49 201 177 3475 E-Mail bioeconomy@evonik.com Internet www.evonik.com Employees 33,000 Founded (year) 2007



Evonik, the creative industrial group from Germany, is one of the world leaders in specialty chemicals. Profitable growth and a sustained increase in the value of the company form the heart of Evonik's corporate strategy. Its activities focus on the key megatrends health, nutrition, resource efficiency and globalization. Evonik benefits specifically from its innovative prowess and integrated technology platforms.

Evonik is active in over 100 countries around the world. In fiscal 2015 more than 33,000 employees generated sales of around €13.5 billion and an operating profit (adjusted EBITDA) of about €2.4 billion.

Evonik innovates and serves the bioeconomy markets. Products are i. a. Biolys®, DYNACOLL® Terra, DYNAPOL® Terra, RESOMER®, ThreAMINO®, TrypAMINO®, and VESTAMID® Terra.

Name

EVONIK Operations GmbH

Address Postal Code/City

Kantstraße 2 33790 Halle-Künsebeck

Fon +49 5201 857-0 Fax +49 5208 9125-49 E-Mail christoph.kobler@evonik.com Internet www.evonik.com

Employees >170 Founded (year)

1982



The Evonik Biotech Hub is the competence centre for industrial biotechnology at Evonik and offers everything from a single source - from breakthrough ideas to industrial bioprocess production - and helps to turn busi ness opportunities into entrepreneurial success.

We consider Industrial Biotechnology as the key technology platform for a sustainable industry, as with biotechnological processes have the potential to

- reduce the consumption of natural resources.
- improve the sustainability of the global food system, and
- enable the smooth transition to a circular economy.

In addition, Industrial Biotechnology is an important lever for growth and innovation, as novel products inspired by nature and inaccessible via chemical synthesis can be developed, further as complementing technologies and services of Evonik.

Name

Grünenthal GmbH

Postal Code/City 52099 Aachen

Address Zieglerstr. 6

Fon +49 241 569-0 E-Mail info@grunenthal.com Internet www.grunenthal.com

Founded (year) 1946

Employees 4,500 worldwide



Grünenthal is a global leader in pain management and related diseases. As a sciencebased, fully-integrated pharmaceutical company, we have a long track record of bringing innovative treatments and state-ofthe-art technologies to patients worldwide. Our purpose is to change lives for the better - and innovation is our passion. We are focusing all of our activities and efforts on working towards our vision of a world free of pain.

Grünenthal is headquartered in Aachen, Germany, and has affiliates in 28 countries across Europe. Latin America and the US. Our products are available in more than 100 countries. In 2021, Grünenthal employed around 4,500 people and achieved sales of € 1.5 bn.

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Henkel operates globally with a wellbalanced and diversified portfolio. The company holds leading positions with its three business units in both industrial and consumer businesses thanks to strong brands, innovations and technologies.

For more than 140 years, Henkel has been taking a visionary approach to supporting environmental and social progress. We've integrated these criteria into our innovation

process, because we recognize the potential impact of our products and technologies being used millions of times around the world every day. Henkel Adhesive Technologies is the global leader in the adhesives market – across all industry segments worldwide.

In its Laundry & Home Care and Beauty Care businesses, Henkel holds leading positions in many markets and categories around the world. Henkel employs more than 52,000 people globally and reported sales of more than 20,0 bn euros in fiscal year 2021. Henkel's preferred shares are listed in the German stock index DAX.

Henkel AG & Co. KGaA Name Address Henkelstr. 67 Postal Code/City 40191 Düsseldorf Fon +49 211 7979 630 Fax +49 211 7982 245 www.henkel.com Internet **Employees** 52.000 Founded (year) 1876



PerkinElmer chemagen Technologie GmbH is a key player in the field of automated nucleic acid isolation with vast experience in the field of DNA and RNA isolation for human genetics, HLA typing, blood banking, and pathogen detection. chemagen's technology for the purification of genomic

DNA, cfDNA, RNA, and viral nucleic acids is based on the use of proprietary M-PVA Magnetic Beads in combination with our high-performance instruments.

chemagen has developed numerous kits for the isolation of nucleic acids from various sample materials such as blood, serum or plasma, tissue, saliva, buccal swabs, amniotic fluid or stool samples. PerkinElmer chemagen routinely develops customized solutions addressing any specific requirements for DNA or RNA purification in close coordination with clients. IVD versions of instruments and kits are available.

PerkinElmer chemagen Name Technologie GmbH Address Arnold-Sommerfeld-Ring 2 Postal Code/City 52499 Baesweiler +49 2401 805500 +49 2401 805519 Fax support.chemagen@ E-Mail perkinelmer.com Internet www.chemagen.com **Employees** >60 Founded (year) 1997



Since more than 70 years, Pharma Waldhof GmbH is experienced in Nucleic Acid Biochemistry and Co-Enzymes. Our success is based on delivering quality value added products in various segments like Pharma APIs and Intermediates, Cosmetics- and Cell Culture Media Ingredients, and Diagnostics. Pharma Waldhof belongs to the multinational Aceto Group.

Pharma Waldhof maintains manufacturing and technical collaboration with selected and world-renowned biotechnology companies and research institutions as well, qualifying us to flexibly respond to specific customer demands and developments.

| Name | Pharma Waldhof GmbH |
|------------------|-----------------------|
| Address | Hansaallee 159 |
| Postal Code/City | 40549 Düsseldorf |
| Fon | +49 211 52602-0 |
| Fax | +49 211 52602-60 |
| E-Mail | info@pharmawaldhof.de |
| Internet | www.pharmawaldhof.de |
| Employees | 13 |
| Founded (year) | 1974 |

other **BIO.NRW**

Name Syngenta Seeds GmbH Address Zum Knipkenbach 20 Postal Code/City 32107 Bad Salzuflen Fon +49 5222 5308-0 E-Mail internet.marketing@ syngenta.com Internet www.syngenta.de Employees 150 Founded (year) 2000



Syngenta is a leading agriculture company helping to improve global food security by enabling millions of farmers to make better use of available resources.

Through world class science and innovative crop solutions, our 28,000 people in over 90 countries are working to transform how crops are grown. We are committed to rescuing land from degradation,

enhancing biodiversity and revitalizing rural communities.

To learn more visit www.svngenta.com and www.goodgrowthplan.com. Follow us on Twitter® at www.twitter.com/Syngenta.

Name

Taros Chemicals GmbH & Co. KG

Address Postal Code/City Emil-Figge-Str. 76a 44227 Dortmund

Fax Internet

+49 231 226198-11 +49 231 226198-19 E-Mail info@taros.de www.tarosdiscovery.com

Employees 65 Founded (year)

1999



Taros, a privately owned chemistry CRO and custom synthesis company has been serving pharmaceutical, biotech and chemical companies since 1999. Within our drug discovery division, our mission is to deliver chemistry enabling clinical candidates for our clients. Taros has a strong scientific track record on many biomolecular targets in all main therapeutic areas and thereby adding considerable value to collaborations from target validation and hit identification to lead optimization. Taros' chemical services include custom synthesis, process chemistry, medicinal chemistry, computational chemistry and molecular design, as well as compound library design and production. As a one-stop shop we support our customers with scale-up of fine and specialty chemicals to first kg quantities, cost reduction of existing syntheses and streamlining chemical processes.

Name

UCB Pharma GmbH UCB Biosciences GmbH

Postal Code/City

Address Alfred-Nobel-Str. 10 40789 Monheim

Fon +49 2173 4848-48 Fax +49 2173 4848-41 E-Mail ucbcares.de@ucb.com Internet www.ucb.com; www.ucb.de

Founded (year) 1928 (Belgium)



Inspired by patients. Driven by science.

UCB is a global biopharmaceutical company with around 7,500 people worldwide. We focus on neurology and immunology disorders - putting patients at the center of our world. UCB is connecting science in new ways, notably chemistry and biology, so that they can leverage the potential of these two disciplines, as well as illuminate the biological pathways involved in severe

diseases. The complexities of severe diseases are beyond the expertise and resources of a single organisation.

Developing and commercialising innovative therapies is often the result of strong partnerships. That is why we value partnering with leading academic, biotech and pharma companies to bring new solutions for patients. There is no such thing as an "average patient". We are seeking to embed the real needs of specific patient populations in our science and innovation process.



W. von Borries-Eckendorf is a medium-sized family-owned company, founded in 1849 by Wilhelm von Borries (1805-1890), a prominent farmer and talented plant breeder. Starting with the "Eckendorfer" fodder beet,

WvB is nowadays well known for strong breeding programs in oilseed rape, barley and high yielding wheat varieties.

The company based in Lippe is founding member of the Rapool Ring GmbH and the Saaten-Union Biotec GmbH.

Along with other breeding companies, Eckendorf is significantly involved in one of the largest distributors in the German sector of seed, the Saaten-Union GmbH.

| Name | W. von Borries-Eckendorf GmbH & Co. KG Pflanzenzuchtbetrieb |
|-----------------------------|---|
| Address | Hovedisser Strasse 94 |
| Postal Code/City | 33818 Leopoldshöhe |
| Fon | +49 5208 9125-30 |
| Fax | +49 5208 9125-49 |
| E-Mail | info@wvb-eckendorf.de |
| Internet | www.wvb-eckendorf.de |
| Employees Founded (year) | 40 1849 |