

# Customer Portfolio

## Prof. Robert TERKELTAUB

Professor of Medicine, University of California San Diego - USA

«genOway is the Mercedes Benz of transgenic outsourcing companies»



genOway is a service provider dedicated to the development of **tailor made transgenic mouse and rat models**. The company has established international business relationship with renowned academic research centres, a growing number of biotech companies as well as most leading pharmaceuticals companies **in 23 countries** in Europe, North America and Asia.

## Major Biopharmaceutical Customers

Actelion Pharmaceuticals - Active Biotech - Altana Pharma - Ark Therapeutics - Aventis Pharmaceuticals - Baxter Bioscience - Bayer-Biopharm - BioTie Therapies - Bioxell - Boehringer Ingelheim - Bracco Research USA - Cell Tech - Cell Therapeutics - Centocor- Chiesi Farmaceutici - Chroma Therapeutics - Corimmun - Eisai Co Ltd - EMD-Lexigen - Fate Therapeutics - Galderma - Galenea Corporation GeNeuro - Genmab - Genentech- GlaxoSmithKline - Gruenthal -ImmunoGen - Ingenium pharmaceuticals - InterMune - Johnson & Johnson - Kyowa Hakko Kogyo- Laboratoires Pierre Fabre - Laboratoires Servier - Mellitech - Memory Pharmaceuticals - Merck Sharp & Dohme - Novartis - Novo Nordisk - Novuspharma- Ono Pharmaceutical - Pfizer - Preclin Biosystems - Probiobdrug - Proteome Sciences - Prosidion - Regulus- Roche - SangStat - sanofi-synthelabo - Schering A.G. - Schering-Plough - Sepracor - Solvay - Syn-X Pharmaceutical - Xencor.

## Academic Customers: Renowned Universities and Research Institutes

 **Australia** - Baker Medical Research Institute -  **Austria** - Research Institute of Molecular Pathology -  **Belgium** - Flanders Interuniversity Institute for Biotechnology, Institut de Recherche Interdisciplinaire en Biologie Humaine et Moléculaire, Université Catholique de Louvain, Université Libre de Bruxelles, University of Antwerp, University of Brussels -  **Canada** - Henderson Research Centre, McGill University, University of Alberta, University of British Columbia, University of Guelph, University of Toronto, University of Western Ontario -  **Denmark** - The Panum Institute, Rigshospitalet -  **Finland** - University of Helsinki, University of Tampere -  **France** - Atomic Energy Commission, Centre de Lutte Contre le Cancer Léon-Bérard, Centre National de Génotypage, CNRS, Collège de France, Genethon, Hôpital Saint-Antoine, Inserm, Institut de Biologie de Lille, Institut de Neurobiologie A. Fessard, Institut Gustave Roussy, Institut National de la Transfusion Sanguine, Institut Paoli Calmettes, Institute for Radiological Protection and Nuclear Safety (IRSN), Institute of Molecular & Cellular Pharmacology, Louis Bugnard Institute, Pasteur Institute - Lille, Pasteur Institute - Paris -  **Germany** - Albert Ludwigs University Freiburg, Charité University Berlin, Christian Albrechts University Kiel, Dresden University of Technology, Essen University, Free University Berlin, Heart Center Goettingen, Heinrich Heine University Düsseldorf, Heinrich Pette Institute for Experimental Virology and Immunology Hamburg, Johann Wolfgang Goethe University Hospital Frankfurt, Justus Liebig University Giessen, Leibniz Institute for Age Research Jena, Ludwig Maximilians University Munich, Max Delbrueck Center for Molecular Medicine, Max Planck Institute for Biophysical Chemistry, Max-Planck Institute for Experimental Medicine Göttingen, Max-Planck Institute for Molecular Biomedicine Munster, Max-Planck Institute of Molecular Endocrinology Hannover, Neuroscience Research Center (NWFZ), Research Center Borstel, Research Center Julich, Research Center Karlsruhe, Rudolf Buchheim Institute for Pharmacology Giessen, Saarland University Homburg, Technical University Munich, University Hospital Kiel, University of Cologne, University Medical Center Eppendorf, University of Duesseldorf, University of Erlangen, University of Frankfurt am Main, University of Kaiserslautern, University of Konstanz, University of Leipzig, University of

Ulm, University of Wuerzburg -  **Hungary** - Hungarian Academy of Sciences -  **India** - Tata Institute of Fundamental Research

 **Ireland** - Conway Institute of Biomolecular and Biomedical Research, Trinity College Dublin, University College Dublin -  **Israel** - Bnai-Zion Medical Center, Weizmann Institute -  **Italy** - Advanced Biotechnology Center, DIBIT, European Institute of Oncology, Fondazione Parco Biomedico San Raffaele, I.R.C.C.S. san Giovanni di Dio, Institute for Cancer Research and Treatment, Istituto FIRC di Oncologia Molecolare, Istituto Nazionale Neurologico Carlo Besta, Istituto Nazionale Tumori, Istituto Tecnologie Biomediche Avanzate, Mario Negri Institute for Pharmacological Research, Scientific Institute San Raffaele, Università degli studi di Bresciai , Università degli Studi di Modena e Reggio Emilia, Università degli Studi di Napoli Federico II, Università degli Studi Magna Graecia, University of Milan Bicocca, University of Perugia, University of Rome Tor Vergata -  **Japan** - University of Tokyo

-  **Norway** - University of Bergen, University of Oslo -  **The Netherlands** - Academic Medical Center, Netherlands Institute for Developmental Biology, University Medical Center Nijmegen, University of Wageningen -  **Portugal** - Institute for Molecular and Cellular Biology -  **Singapore** - National Cancer Centre -  **Spain** - Biomedical Research Institute "Alberto Sols", Centro de Biología Molecular Severo Ochoa, Centro de Biología Molecular, Centro de Investigación del Cáncer, Centro de Investigaciones Biológicas, Centro Nacional de Biotecnología, Centro Nacional de Investigaciones Oncológicas, Instituto de Biomedicina de Valencia, Hospital Universitari Germans I Pujol, Institut de Recerca Hospital Universitari Vall d'Hebron, Institut de Recerca Oncologica, Universidad de Castilla-La Mancha, University of Barcelona, University of Navarra, University of Salamanca, University of Zaragoza, Universitat Pompeu Fabra -  **Sweden** - Ludwig Institute For Cancer Research -  **Switzerland** - Centre Hospitalier Universitaire Vaudois, Swiss Federal Institute of Technology of Zürich, University of Bern, University of Geneva, University of Lausanne, University of Zurich - Institute of Medical Microbiology -  **UK** - Cambridge Institute for Medical Research, Hannah Research Institute, Imperial College of London, Institute of Cancer Research, Institute of Ophthalmology (UCL), Kennedy Institute of Rheumatology, King's College London, MRC Functional Genetics Unit, MRC Human Genetics Unit, Ninewells Hospital-University of Dundee, St. George's Hospital Medical School, Strathclyde Institute for Biomedical Sciences, University College London, University of Aberdeen, University of Birmingham, University of Bristol, University of Cambridge, University of Dundee, University of Edinburgh, University of Leeds, University of Leicester, University of Manchester, University of Newcastle, University of Oxford, University of Southampton, University of Wales Bangor, Wellcome Trust Centre for Human Genetics, Wolfson Institute for Biomedical Research -  **USA** - Albert Einstein College of Medicine of Yeshiva University, Baylor College of Medicine, Beth Israel Deaconess Medical Center, Blood Center of Wisconsin, Boston Biomedical Research Institute, Boston University, Boys Town National Research Hospital, Burnham Institute for Medical Research, California Institute of Technology, Cedars Sinai Medical Center, Children's Hospital Boston, Cleveland Clinic, Columbia University, Cornell University-Weill Medical College, Duke University Medical Center, Emory University, Geisinger Medical Center, Genome Research Institute - University of Cincinnati, Greater Los Angeles Veterans Affairs Medical Center, Harvard Medical School, Harvard School of Public Health, Indiana University-Purdue University Indianapolis, Kimmel Cancer Center, Louisiana State University Health Sciences Center, M. D. Anderson Cancer Center, Mayo Clinic, Massachusetts General Hospital, Medical College of Georgia, Mount Sinai School of Medicine, National Institutes of Health, Nemours Biomedical Research, SUNY Upstate Medical University, Temple University School of Medicine, Texas Tech University Health Sciences Center, The Feinstein Institute for Medical Research, The Scripps Research Institute, The Wistar Institute, Tufts Medical Center, Tufts University, Tulane University Health Sciences Center, U.S. Food and Drug Administration, Uniformed Services University of the Health Sciences, University of Alabama at Birmingham, University of California Davis, University of California Los Angeles, University of California - San Diego, University of California- San Francisco, University of Central Florida, University of Illinois at Chicago, University of Iowa Carver College of Medicine, University of Kansas Medical Center, University of Maryland School of Medicine, University of Michigan, University of Minnesota, University Of Mississippi Medical Center, University of Missouri Columbia, University of North Carolina, University of Pennsylvania, University of Pittsburgh, University of Southern California, University of Texas Health Science Center at San Antonio, University of Utah, University of Washington, Wadsworth Center, Washington University in Saint Louis, Wayne State University.

## EU 6th and 7th Framework projects

genOway is involved in EU Framework for several projects as a SME partner :

- EVI-GENORET: Functional Genomics of the Retina in Health and disease
- EPI-Vector: Treating genetic diseases by introducing functional genes into the human organism
- EURO-DIA: Functional genomics of Pancreatic beta cells and of tissues involved in control of the endocrine pancreas for prevention and treatment of type 2 diabetes
- EUGeneHeart: Genomics of Cardiomyocyte Signaling to Treat and Prevent Heart Failure
- AtheroRemo: Inflammation and Vascular Wall Remodelling in Atherosclerosis
- MYORES: the European Muscle Development Network

## Customer testimonials

genOway is very proud to report below some of the testimonials made by its customers:

### **Prof. Bellur S. PRABHAKAR**

Head Department of microbiology and immunology  
University of Illinois at Chicago - USA

*«I am truly impressed with the responsiveness and help that I have obtained from genOway. It has been a pleasure to work with a highly professional staff that is responsive to the needs of customer like me. I started this project with no personal experience in creating a knockout mice. My early discussions with your scientists and subsequent helpful suggestions have helped immensely to successfully complete this very challenging project. I am quite certain that these mice will be of immense value to our research and I will certainly use genOway services for my future work related to creating knockout mice.»*

### **Prof. Stephen MOSS**

Department of Neuroscience - Tufts University - USA  
Department of Neuroscience, Physiology and Pharmacology - University College London - UK

*«We are actively engaged in the production of a number of knock-in mouse models with genOway. We have been very pleased with all stages of production, but particularly with the initial design and flexibility that genOway provides to its customers. It truly feels like a real collaboration, with frequent updates and suggestions, resulting in the production of mouse models that are tailor-made to our research needs.»*

### **Prof. Simon C. ROBSON**

Professor of Medicine and Director of Liver Research  
Harvard University - Beth Israel Deaconess Medical Center - USA

*«We were highly impressed by the expert manner genOway's scientists managed what I felt to be a rather difficult mutant mouse project and achieved success within their proposed timelines. The project leader, deserves a lot of praise for his expertise and preparation of the detailed, clear and concise reports that arrived at all the expected times. Their collaboration with Charles River regarding the mouse line transfer to our animal facility in Boston was an additional advantage. I can highly recommend their services.»*

### **Dr. Maria T. DIAZ-MECO**

Group leader, Genome Research Institute - University of Cincinnati - USA

*«We have worked with genOway in different projects for several years, and we are very impressed by their competence, motivation and flexibility. We are very happy with this fruitful collaboration and we totally recommend genOway for developing animal models at any stage»*

**Prof. Arne KLUNGLAND**

Group leader Centre for Molecular Biology and Neuroscience

University of Oslo and Rikshospitalet - Norway

*«genOway has carried out several projects for us. This collaboration has been very successful. Not just because we have received our models as expected, but also due to very helpful consultations, professional reporting and flexibility. Their technologies are highly innovative»*

**Prof. Gianfranco SEBASTIO**

Associate Professor

Department of Pediatrics - Federico II University - Italy

*«For more than two years we have worked with the scientific staff at genOway appreciating their fruitful and constant collaboration and their outstanding expertise. The development of our animal model was carefully guided by genOway scientists as we planned to perform part of it. The schedule of the project was strictly followed thanks also to rapid and effective changes of the strategy. I will continue my relationship with genOway and I recommend their collaboration to all scientists looking for successful results in the difficult task of developing animal models.»*

**Prof. Shomi BHATTACHARYA**

Head of the Molecular Genetics Department

Institute of Ophthalmology - University College London - United Kingdom

*«Leader for the development of transgenic mouse and rats, genOway is a very reliable biotechnology company. Their main quality is to work along with the scientific community in providing a very flexible service customized to the needs and requirements of the customer.»*

**Prof. Ruben PIO**

Group Leader

Center for Applied Medical Research - University of Navarra - Spain

*«genOway has really impressed me with the quality of its service and its competence. I would emphasize their reliability and their accessibility at any time to discuss any aspect related to our project. We expect that the fruitful collaboration established between genOway and our institution will continue in the future.»*

**Dr. Angela GRECO**

Istituto Nazionale per lo Studio e la Cura dei Tumori - Italy

*«genOway is a very reliable company. They provide a very flexible service customized to our needs and expectation. I particularly appreciate the frequent reports and personal contacts by the project leader and consultant.»*

**Prof. Gerd WALZ**

Head of the Department of Nephrology

Albert Ludwigs University Freiburg - University Clinic - Germany

*«genOway provides us with a very professional services within the expected timelines and high quality scientific exchanges. We are delighted to recommend their services.»*

**Prof. Ludwig NEYSES**

Professor of Medicine & Cardiology

University of Manchester - United Kingdom

*«I ascertain that genOway has provided extremely efficient and competent services to us and we will very likely use them again in the future.»*

**Prof. Hans CLEVERS**

Director of the Hubrecht Laboratory - The Netherlands

*«genOway has already supplied us with several difficult-to-make knockout cell lines. We are impressed by the speed and professionalism in which genOway provides these services, and are eager to build on this very this successful collaboration»*

**Prof. Pier Giuseppe PELICCI**

Chairman of the Department of Experimental Oncology - IEO

Scientific Director of SEMM - Italy

*«IEO and genOway collaboration started some years ago while we were looking for collaborative and highly professional technologists for the development of our knock-out mouse models. We have been impressed by their competence and motivation, by the solutions they found to solve our problems and by the flexibility in discussing every milestone of the project at any time. We are more than happy to continue and improve our collaboration with genOway.»*

**Prof. Ivan DIKIC**

Professor

Institute of Biochemistry II - Goethe University Medical School - Germany

*«genOway has a professional attitude toward its customers. We have really appreciated their innovative technologies and the personal contact with their team. They truly care about their customers.»*

**Prof. Pier Paolo DI FIORE**

Scientific Director of IFOM - Italy

*«genOway is a leading company in the field of genetically modified mouse and rat models. Its technology platform is impressive, comprising technologies classically used in transgenesis and more innovative approaches, like conditional and inducible systems. We experienced their methodology by producing few lines of transgenic animals. Design and development of the project were customized to our specific requests, there was no waiting list and the frequent reports sent by the project leader allow our researchers to follow the entire process with the possibility of a fine-tuning or eventually a re-direction of the project. We would totally recommend genOway and we are looking forward to a long relationship.»*

**Dr. Luisa LANFRANCONE**

Group Leader

IFOM-IEO Campus - Italy

*«Mouse knock-out technology is an important step in cancer research, it provides relevant answers to scientific questions but it is time-consuming and difficult to set up. The Department of Experimental Oncology decided to take advantage of genOway's expertise in this field. We generated several lines of genetically modified mice together. Beside the technological success within the expected time-frame, we appreciated the frequent and fruitful exchange of ideas, the collaborative attitude of the project leaders, as well as of the consultants and directors of study. You feel that the company is truly at your service but that you can constantly re-discuss the direction of the project on the basis of the very last result you have achieved.»*

**Prof. Dr. Dieter HÄUSSINGER**

Head of the Collaborative Research Center «Experimental Hepatology»

Heinrich-Heine-University-Düsseldorf - Germany

*«It goes without saying that knockout technologies are an indispensable research tool in Hepatology. In this regard we started a cooperation with genOway which is highly specialized in the generation of genetically modified mice. We appreciate that genOway provides a highly professional consulting demonstrating clear-cut alternative strategies and substantiated risk analyses, which meet well our requirements. I am looking forward to a fruitful collaboration between genOway and our Collaborative Research Center.»*

**Dr. Paul RILEY**

Senior lecturer

Institute of Child Health - University College London - United Kingdom

*«genOway has not only successfully provided this service, but we have benefited a great deal from their consultation, experience and professionalism. A major factor in recommending genOway is the flexibility of their approach; each project is able to evolve such that the relationship between researcher and the genOway team is more like that of a true collaboration.»*

## Dr. Carla BOCCACCIO

Associate Professor

Institute of Cancer Research and Treatment - Italy

«I have never witnessed such proactive behavior with customers. genOway truly understand our challenges and is equipped with cutting-edges technologies that fulfill our expectations.»

## Scientific publications

genOway has been acknowledged in the following articles for the generation of the mouse/rat models

- Hofmann LP, Ren S, Schwalm S, Pfeilschifter J, Huwiler A. **Sphingosine kinase 1 and 2 regulate the capacity of mesangial cells to resist apoptotic stimuli in an opposing manner.** Biol Chem. 2008 Nov;389(11):1399-407.
- Lastres-Becker I, Brodesser S, Lütjohann D, Azizov M, Buchmann J, Hintermann E, Sandhoff K, Schürmann A, Nowock J, Auburger G. **Insulin receptor and lipid metabolism pathology in ataxin-2 knock-out mice.** Hum Mol Genet. 2008 Feb 13
- Ferry G, Giganti A, Coge F, Bertaux F, Thiam K, Boutin JA. **Functional invalidation of the autotaxin gene by a single amino acid mutation in mouse is lethal.** FEBS Lett. 2007 Jul 24;581(18):3572-8
- Smart N, Risebro CA, Melville AA, Moses K, Schwartz RJ, Chien KR, Riley PR. **Thymosin beta4 induces adult epicardial progenitor mobilization and neovascularization.** Nature. 2007 Jan 11;445(7124):177-82.
- Chambrey R, Goossens D, Bourgeois S, Picard N, Bloch-Faure M, Leviel F, Geoffroy V, Cambillau M, Colin Y, Paillard M, Houillier P, Cartron JP, Eladari D. **Genetic ablation of Rhbg in the mouse does not impair renal ammonium excretion.** Am J Physiol Renal Physiol. 2005 Dec;289(6):F1281-90.
- Mailliet F, Ferry G, Vella F, Thiam K, Delagrangue P, Boutin JA. **Organs from mice deleted for NRH:quinone oxidoreductase 2 are deprived of the melatonin binding site MT3.** FEBS Lett. 2004 Dec 3;578(1-2):116-20.
- Chevillard G, Clemencet MC, Latruffe N, Nicolas-Frances V. **Targeted disruption of the peroxisomal thiolase B gene in mouse: a new model to study disorders related to peroxisomal lipid metabolism.** Biochimie. 2004 Nov;86(11):849-56.
- Roselli S, Heidet L, Sich M, Henger A, Kretzler M, Gubler MC, Antignac C. **Early glomerular filtration defect and severe renal disease in podocin-deficient mice.** Mol Cell Biol. 2004 Jan;24(2):546-60.
- Merlo GR, Paleari L, Mantero S, Genova F, Beverdam A, Palmisano GL, Barbieri O, Levi G. **Mouse model of split hand/foot malformation type I.** Genesis. 2002 Jun;33(2):97-101.

genOway is the author of the following publications:

- Cozzi J, Fraichard A, Thiam K. **Use of genetically modified rat models for translational medicine.** Drug Discov Today 2008; 13: 488-494.
- Tesson L, Cozzi J, Menoret S, Remy S, Usal C, Fraichard A, Anegon I. **Transgenic modifications of the rat genome.** Transgenic Res. 2005 Oct;14(5):531-46.
- Zhou Q, Renard JP, Le Fric G, Brochard V, Beaujean N, Cherifi Y, Fraichard A, Cozzi J. **Generation of fertile cloned rats by regulating oocyte activation.** Science. 2003 Nov 14;302(5648):1179. 2003

Article in Book:

- «**Procedures for somatic cell nuclear transfer in the rat**» Jean Cozzi, Eryao Wang, Christelle Jacquet, Alexandre Fraichard, Yacine Cherifi, Qi Zhou. Methods and Protocols, Methods in Molecular Biology, vol 597, Humana Press 2010

- «**Interference RNA for *in vivo* knock-down of gene expression or genome-wide screening using shRNA**». Petit S, Thiam K. In: Anegon (ed.). Rat genomics: Methods and Protocols, Methods in Molecular Biology, vol 597, @ Humana Press 2010
- «**Pronuclear DNA injection for the production of transgenic rats**». Cozzi J, Fraichard A, Braun V, Gross A-C, Merrouche C, Anegon I, Thiam K. In: Transgenesis, Third Edition. 2008.
- «***in vivo* RNA interference: another tool in the Box?**» in Non-viral Gene Therapy - Gene design and Delivery. Taira, K.; Kataoka, K.; Niidome, T. (Eds.) @ Springer-verlag Tokyo 2005