



## **Open Monoclonal Technology and Recombinant Antibody Technology Announce OmniRat™ scientific publication**

**Palo Alto, CA, and Cambridge, UK, January 21, 2013**

Today, Open Monoclonal Technology, Inc. (OMT) and Recombinant Antibody Technology, Ltd (RAT) announced a publication about **OmniRat™** in the Journal of Immunology ([www.jimmunol.org/content/early/2013/01/09/jimmunol.1203041](http://www.jimmunol.org/content/early/2013/01/09/jimmunol.1203041)). The publication by scientists from OMT, RAT and Pfizer is entitled “High-Affinity IgG Antibodies Develop Naturally in Ig-Knockout Rats Carrying Germline Human IgH/Igk/Igl Loci Bearing the Rat CH Region” and covers eighteen months of close collaboration between the teams.

The manuscript describes a comprehensive comparison of wild type animals with OmniRat, the first genetically engineered rat to generate fully human antibody specificities. While there have been numerous transgenic mice expressing human antibodies, this is the first genetic engineering project that resulted in an animal that makes antibodies with fully human idiotypes as well as wild type animals make their own antibodies.

Antibodies from transgenic animals have proven to be the most productive platform for human antibody drug discovery and development. Six of eight currently approved human monoclonal antibodies are from transgenic animals and many more are in the pharmaceutical industry pipeline.

Dr. Marianne Brüggemann, senior author of the manuscript, Research Director of RAT and scientific advisor to OMT, said: "We generated the first mouse expressing human antibodies 25 years ago. Many others followed but none of these worked as well as normal animals. I am pleased that we finally managed to generate an animal that makes antibodies with human idiotypes as well as wildtype animals. The data convinced Pfizer that OmniRat is a valuable tool for routine generation of high affinity human antibodies

### **Open Monoclonal Technology, Inc.**

Open Monoclonal Technology, Inc. (OMT) is a leader in genetic engineering of animals for the development of human therapeutic antibodies – **naturally optimized human antibodies™**.

OMT has created **OmniRat™**, the first fully human monoclonal antibody platform based on transgenic rats. OMT's genetic engineering is based on an improved understanding of B cell development and a new approach to inactivation of endogenous antibody expression, which enables OmniRat to make antibodies with human idiotypes as efficiently as wild type rats make normal antibodies. OmniRat represents a novel and proprietary technology with unrestricted development options for fully human monoclonal antibodies, available worldwide for all targets and indications.

OMT also develops a transgenic mouse, **OmniMouse™**, to complement OmniRat and further increase epitope coverage in human antibody development.

**OmniAb™** integrates OMT's transgenic animal platforms, proven protein and DNA immunization and Gel-Encapsulated Microenvironment (GEM) deep antibody screening to enable fast and cost-efficient generation and identification of preferred human therapeutic antibody candidates.

**Recombinant Antibody Technology, Ltd.**

Recombinant Antibody Technology, Ltd. (RAT) is a leader in genetic engineering of animals using novel strategies for assembly and modification of mini-chromosomes.

As a research affiliate of Open Monoclonal Technology, Inc. (OMT), RAT has been instrumental in creating **OmniRat™** and **OmniMouse™**.

**For more information**

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