

## News Release

Lonza Inc.  
90 Boroline Road  
Allendale, NJ 07401, USA  
contact.allendale@lonza.com  
www.lonza.com

### Lonza Presents New Immunomodulatory Research Results for Larch Arabinogalactan-based ResistAid™

Allendale, NJ, 13 October 2009 – A new study sponsored by Lonza demonstrated a positive immune response by the Larch Arabinogalactan (LAG)-based ResistAid™. Presented at the [50<sup>th</sup> Annual Meeting](#) of the American College of Nutrition in Orlando, Florida, the results of the randomized, double-blind, placebo-controlled, parallel-group study showed that ResistAid™ increased the antibody (Ab) response to the 23-valent pneumococcal (pneumonia) vaccine.

“This study broadens our understanding about the beneficial impact of ResistAid™ on the immune system. To date, research has shown a non-specific, cellular response in healthy populations. Based on the study results, we now see that the immune benefits are broadened to include the adaptive immune response, which is a response to specific antigens. The study further showed that ResistAid™ had an immunomodulatory effect, meaning that ResistAid™ enhanced the appropriate response to the antigen without indiscriminately enhancing other arms of the immune system that would not be expected to respond” said Bryan Rodriguez, Technical Marketing & Scientific Affairs Manager at Lonza. “Combined with its [ability](#) to increase beneficial immune cell populations while supporting natural killer cells, cytokines, macrophages and white blood cells, ResistAid™ supplies companies with a science-backed ingredient that can be incorporated into a variety of delivery forms for end-use products.”

The study was designed to test the hypothesis that ingestion of ResistAid™ would selectively enhance the antibody response to the pneumococcal (pneumonia) vaccine in healthy adults. Such vaccination studies serve as a model to study the effect of nutraceutical supplementation on the overall immune function. The use of this research model is not intended to suggest the use of ResistAid™ in conjunction with any vaccine, or that the product helps prevent, cure or mitigate pneumonia or any other disease. Rather, it provides additions to the body of research that suggests dietary intake of ResistAid™ may help support healthy immune function. The 72-day trial showed ResistAid™ positively modulated immune function by increasing the antibody response in healthy volunteers without increasing the non-specific innate immune response. Specifically, the group that ingested ResistAid™ demonstrated a higher IgG Ab response to the vaccine than the placebo group in two Ab subtypes (18C and 23F) at both day 51 (p=0.006 and p=0.002 respectively) and at day 72 (p=0.008 and p=0.003). There was no effect from the vaccine or LAG on salivary IgA, white blood cell count, inflammatory cytokines or complement.

Launched in October 2008, ResistAid™ is an all-natural immune health ingredient. Boasting a potent combination of LAG and bioactive flavonoids, it provides both a humoral and cellular immune response. Benefiting from a patented, water-based extraction process from U.S. Larch trees, ResistAid™ is manufactured according to HACCP. It is GMP-audited by the American Institute of Baking, is Kosher certified by the United

Mehadrin and is GMO free. ResistAid™ has a monograph in the Food Chemicals Codex FCC.

### **About Lonza**

Lonza is one of the world's leading suppliers to the pharmaceutical, healthcare and life science industries. Its products and services span its customers' needs from research to final product manufacture. Lonza is the global leader in the production and support of active pharmaceutical ingredients both chemically as well as biotechnologically. Biopharmaceuticals are one of the key growth drivers of the pharmaceutical and biotechnology industries. Lonza has strong capabilities in large and small molecules, peptides, amino acids and niche bioproducts which play an important role in the development of novel medicines and healthcare products. Lonza is a leader in cell-based research, endotoxin detection and cell therapy manufacturing. Lonza is also a leading provider of value chemical and biotech ingredients to the nutrition, hygiene, preservation, agro and personal care markets.

Lonza is headquartered in Basel, Switzerland and is listed on the SIX Swiss Exchange. In 2008, Lonza had sales of CHF 2.94 billion. Further information can be found at [www.lonza.com](http://www.lonza.com) or [www.ResistAid.com](http://www.ResistAid.com).

These statements have not been evaluated by the Food and Drug Administration. This product is not intended to diagnose, treat, cure or prevent any disease.

For further information please contact:

Lonza Inc.  
Technical Marketing & Scientific Affairs Manager  
Bryan Rodriguez  
Tel +1 210 231 0478  
Fax +1 201 696 3445  
[bryan.rodriguez@lonza.com](mailto:bryan.rodriguez@lonza.com)

Lonza America Inc.  
Corporate Communications Sr. Manager  
Melanie Disa  
Tel +1 201 316 9413  
Fax +1 201 696 3533  
[melanie.disa@lonza.com](mailto:melanie.disa@lonza.com)

Lonza Group  
Media Relations  
Dominik Werner  
Tel +41 61 316 8798  
Fax +41 61 316 9798  
[dominik.werner@lonza.com](mailto:dominik.werner@lonza.com)

Lonza Ltd  
Scientific Marketing, Nutrition  
Ulla Freitas  
Tel +41 61 316 8273  
Fax +41 61 316 9273  
[ulla.freitas@lonza.com](mailto:ulla.freitas@lonza.com)