

# Immunomodulatory effects of a proprietary Arabinogalactan extract

<b>Submission date</b> 21/07/2009	<b>Recruitment status</b> No longer recruiting	<input type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
<b>Registration date</b> 19/08/2009	<b>Overall study status</b> Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
<b>Last Edited</b> 05/11/2010	<b>Condition category</b> Respiratory	<input type="checkbox"/> Individual participant data

**Plain English summary of protocol**  
Not provided at time of registration

## Contact information

**Type(s)**  
Scientific

**Contact name**  
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## Additional identifiers

**EudraCT/CTIS number**

**IRAS number**

**ClinicalTrials.gov number**

**Secondary identifying numbers**  
LONZ1000

## Study information

**Scientific Title**

Immunomodulatory effects of a proprietary Arabinogalactan extract: a randomised double-blind placebo controlled parallel group study

### **Study objectives**

The hypothesis of this study is that ingestion of larch arabinogalactan will enhance immune function by increasing the antibody response in healthy volunteers to the 23-valent pneumonia vaccine.

### **Ethics approval required**

Old ethics approval format

### **Ethics approval(s)**

IRB approval was obtained from the Copernicus Group (Cary, NC) on the 2nd September 2008 (ref: MED4-08-256)

### **Study design**

Randomised double-blind placebo controlled parallel group study

### **Primary study design**

Interventional

### **Secondary study design**

Randomised controlled trial

### **Study setting(s)**

Other

### **Study type(s)**

Treatment

### **Participant information sheet**

Not available in web format, please use the contact details below to request a patient information sheet

### **Health condition(s) or problem(s) studied**

Immune response to the 23-valent pneumococcal vaccine

### **Interventions**

This is a randomised double-blind placebo controlled parallel group study with 45 healthy adults who had not previously had the pneumonia vaccine. The study was conducted at a single site Medicus Research clinical Research Center, Northridge, CA, USA.

Resistaïd™ is an arabinogalactan extracted from the bark of the Larch tree (*Larix* spp., mostly *Larix occidentalis*; Lonza, Inc., Allendale, NJ). The placebo was maltodextrin (Maltin M100). The test product and the placebo were administered by mixing the powders into a beverage of the subject's choice for a maximum period of 72 days. The subjects were advised to take their dosage (4.5 g) once a day in the morning with breakfast.

### **Intervention Type**

Drug

**Phase**

Not Specified

**Drug/device/biological/vaccine name(s)**

Arabinogalactan extract (Resistaid™)

**Primary outcome measure**

Measurements of:

1. Plasma levels of pneumococcal IgG (subtypes 4, 6B, 9V, 14, 18C, 19F and 23F; enzyme-linked immunosorbent assay [ELISA])
2. Salivary IgA (ELISA)
3. Peripheral white blood cell counts (lymphocytes, neutrophils, etc.,)
4. Plasma complement (C3 and C4)
5. Cytokine levels (epithelial neutrophil-activating peptide [ENA]-78, eotaxin, granulocyte monocyte colony stimulating factor [GM-CSF], interferon-gamma [IFNγ], interleukin [IL]-10, IL-12P40, IL-1RA, IL-2, IL-4, IL-5, IL-6, IL-8, monocyte chemotactic protein [MCP]-1, MCP-3, platelet-derived growth factor [PDGF]-BB, tumour necrosis factor [TNF]-alpha A and leptin)

All outcomes measured at baseline, day 30, day 51, and day 72.

**Secondary outcome measures**

Oxidative stress via F2 isoprostance in urine. All outcomes measured at baseline, day 30, day 51, and day 72.

**Overall study start date**

01/08/2008

**Completion date**

01/12/2008

**Eligibility****Key inclusion criteria**

1. Aged 18 to 65 years, either sex
2. Had a Body Mass Index (BMI) greater than 18 kg/m<sup>2</sup> and less than 30 kg/m<sup>2</sup> at screening
3. Agreed to all study visits and visit procedures
4. Agreed to use appropriate forms of birth control if females of child bearing potential
5. Agreed not to initiate/change any exercise or diet programs during the study

**Participant type(s)**

Patient

**Age group**

Adult

**Lower age limit**

18 Years

**Sex**

Both

**Target number of participants**

50

**Key exclusion criteria**

1. Previously had the pneumococcal vaccine
2. Had allergies to the test product
3. Had any major systemic, inflammatory or chronic disease
4. Had any active infection or infection in the past month requiring antibiotics or anti-viral medication
5. Used immunosuppressive drugs in the prior 5 years
6. Known alcohol or drug abuse
7. Were pregnant or lactating
8. Had any medical condition which in the opinion of the investigator might interfere with the subject's ability in the trial

**Date of first enrolment**

01/08/2008

**Date of final enrolment**

01/12/2008

**Locations****Countries of recruitment**

United States of America

**Study participating centre**

18250 Roscoe Blvd. Suite 240

Northridge

United States of America

91325

**Sponsor information****Organisation**

Lonza, Inc (USA)

**Sponsor details**

90 Boroline Road

Allendale, NJ

United States of America

07401

**Sponsor type**

Industry

**Website**

<http://www.lonza.com>

**ROR**

<https://ror.org/04g4p0a45>

## Funder(s)

**Funder type**

Industry

**Funder Name**

Lonza, Inc (USA)

## Results and Publications

**Publication and dissemination plan**

Not provided at time of registration

**Intention to publish date****Individual participant data (IPD) sharing plan****IPD sharing plan summary**

Not provided at time of registration

**Study outputs**

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Results article</a>	results	26/08/2010		Yes	No