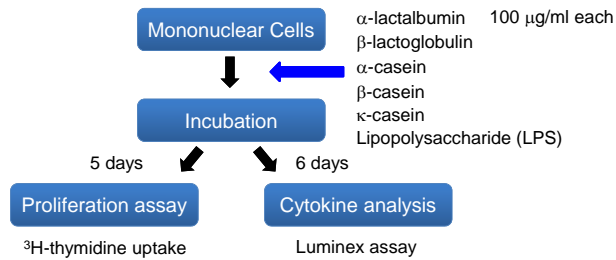


### Methods

**Subject:**

- ★ Patients with FPGID (n = 60)
- ★ Patients of IgE-mediated cow's milk allergy (n = 13)
- ★ Patients with Atopic Dermatitis who showed no clinical symptoms upon ingestion of cow's milk (n = 16)
- ★ Cord blood samples from healthy infants (n = 10)



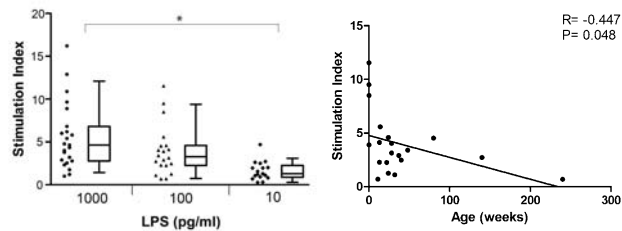
### Lipopolysaccharide (LPS) concentrations in commercially available cow's milk protein preparations

Cow's milk protein preparation	Before treatment (pg/mg)	After treatment (pg/mg)
α-Lactalbumin (Sigma, L-6010)	184,200	14
β-Lactoglobulin (Sigma, L-3908)	206,700	1,880
α-Casein (Sigma, C-6780)	540	23
β-Casein (Sigma, C-6905)	500	34
κ-Casein (Sigma, C-0406)	400	41
LPS-depleted β-Lactoglobulin	29	-

(Bean Stalk Snow Co., Ltd.)

LPS concentration was measured by limulus ameocyte lysate (LAL) assay.

### Impact of LPS on lymphocyte proliferation assay



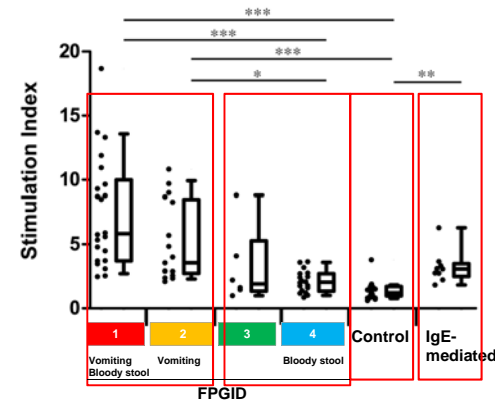
**Subjects:**  
PBMC from neonates and infants  
CBMC from healthy infants with normal vaginal delivery  
**Stimulation:**  
LPS 1000, 100, 10 pg/ml

Even as low as 100 pg/ml of LPS was sufficient to induce significant proliferative responses.

**Subjects:**  
PBMC from neonates and infants  
CBMC from healthy infants with normal vaginal delivery  
**Stimulation:**  
LPS 100 pg/ml

Mononuclear cells from younger children were more strongly affected by LPS than those from older children.

### lympho-proliferative responses against LPS depleted cow's milk components



The dot plots represent the maximum values obtained from each patient among 5 milk components

