

Establish of the startup for drug discovery that promotes to develop therapeutic antibodies for the cystic lymphangioma, a chronic childhood disease

FY2025 STEP2



University of
Toyama

Commercialization
Promotion Organization

Mitsubishi UFJ Capital Co., Ltd.

Principal Investigator

University of Toyama

Associate Professor YAMAMOTO, Seiji

Problem

Chronic childhood disease
Cystic lymphangioma (lymphatic malformation)



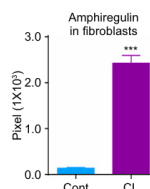
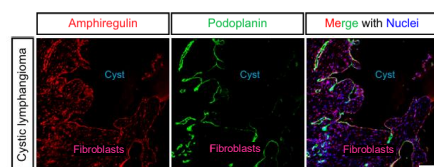
- Giant cervicofacial lesions are characteristic in this disease
- Lesions present at birth
- Giant lesions around the neck cause life-threatening conditions
- There is appearance and physical activity problems
- Estimated 10,000 patients in Japan (about 1,000 severe patients)

Molecular mechanisms are “unknown”, and existing treatment effects are “limited”.

Technology

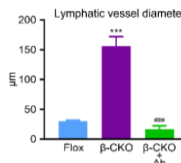
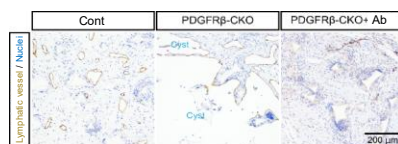
Elucidating the Causative Agent of Cystic Lymphangioma

○ AREG in fibroblasts



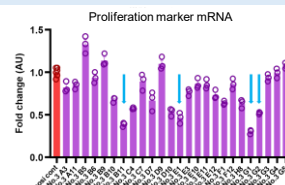
Amphiregulin (AREG)
was identified as the
cause of cystic
lymphangioma!

○ Lymphatic vessel diameter of anti-AREG Ab treated mice



**Remarkable efficacy of
anti-AREG Ab treatment
in mouse models!**

Development of fully human antibodies began



Remarkable inhibitory activity in vitro

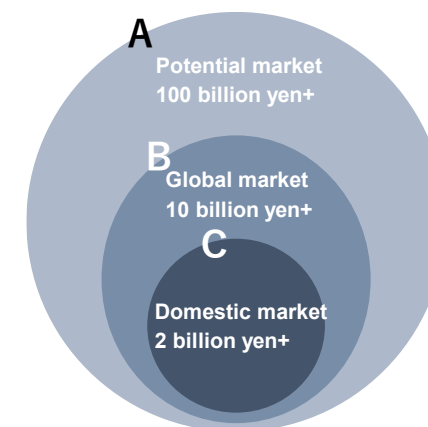
Market

A. Anti-AREG Ab Potential Market×10

B. Cystic lymphangioma(U.S. & Europe)×5

C. Cystic Lymphangioma as “Gate Indication” (Japan)

- Target patients: Estimated 1,000
- Daily drug price: Estimated about 5,000 yen
- Annual drug price per patient: 1,800,000 yen
- Sales: **About 2 billion yen**



Expected establishment date: FY 2029

Target market: Global