次世代アニマルセルインダストリー研究部会
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発表タイトル：Investigating the synthesis bottleneck of shark IgNAR antibodies produced in Chinese hamster ovary (CHO) cells and its application

＜研究内容＞

Antibodies are widely used as therapeutic drugs and research tools. Recently, the structural different heavy chain-only antibody named immunoglobulin new antigen receptor (IgNAR) draws people's attention. IgNAR has the smallest known antigen binding domain (~12 kDa), enabling it access to hidden epitopes. Besides, IgNAR has strong stability. Thus, IgNAR has potential in therapeutic and biotechnological field, but we only have limited knowledge on it. Although, full-length IgNAR fused with human IgG Fc-region (IgNAR-Fc) was expressed by CHO cells. However, recombinant IgNAR-Fc is difficult to express. So, this study is trying to figure out the synthesis bottleneck of full-length IgNAR in CHO cells.

＜オリジナリティ＞

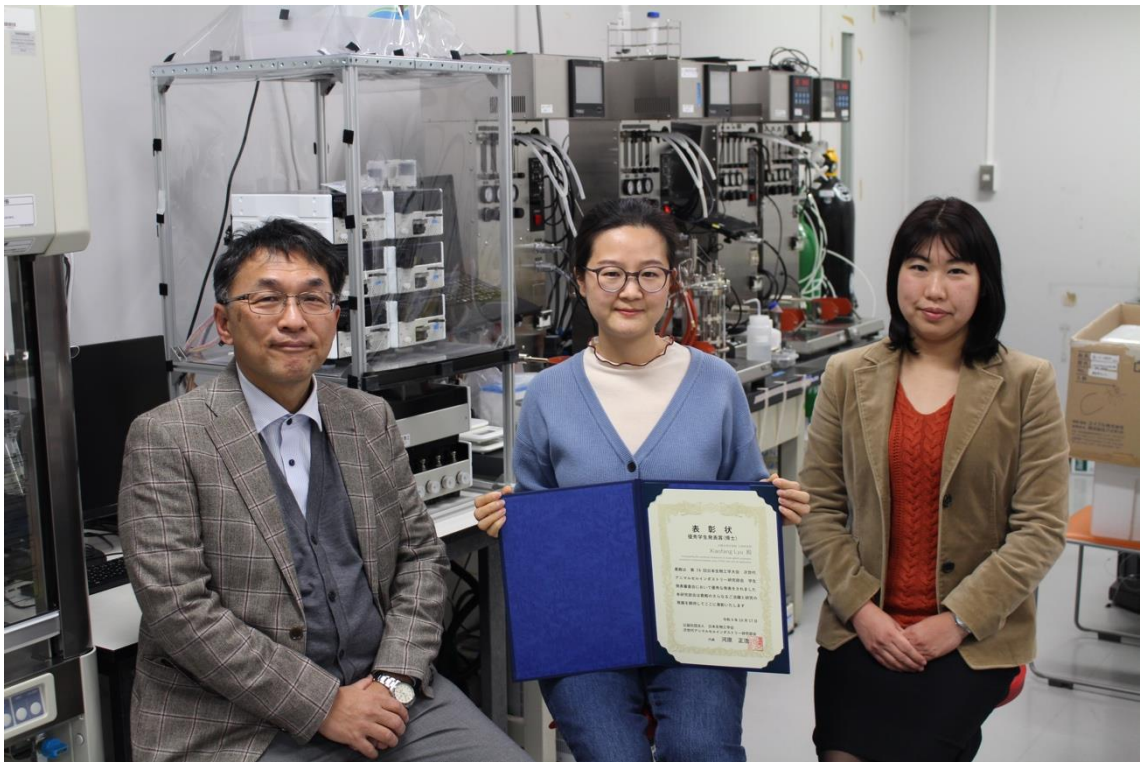
Full-length IgNAR is a difficulty to express antibody. It's important to find the synthesis bottleneck of full-length IgNAR before finding effective methods to largely increase its productivity. This study is the first time systematically and comprehensively exploring the synthesis bottleneck full-length IgNAR. It is the first step to explore its industrial and biotechnological applications.

＜受賞の感想＞

I feel very honored to receive this award. It's a real surprise to me. Here, I would like to attribute this honor to my supervisor Prof. Yuichi Koga and Prof. Takeshi Omasa. And I also want to thank associate Prof. Noriko Yamano-Adachi for giving me a lot of help and advice. And I also want to thank all other people in our lab for their help. I will turn this honor into motivation and encouragement to achieve better results in the future.

＜指導教官からのコメント＞

一流の研究者として活躍できる人材です。自身でしっかりと研究を進めており、学会発表も経験し、様々な交流もできています。日本語も非常に上達しており、素晴らしいです。あとは博士号にむけて、しっかりと邁進してください。期待しています。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