

## 拠点形成研究交流報告：Dr. Julio Villena, Mr. Leonardo AlbarracinおよびMs. Valeria Garcia Castillo (CERELA-CONICET, アルゼンチン拠点)が来日、研究交流ならびに共同研究を実施

アルゼンチン国立乳酸菌研究所(CERELA-CONICET、アルゼンチン研究拠点)より、7月18日にJulio Villena博士、Leonardo AlbarracinおよびValeria Garcia Castillo博士課程大学院生が来日し、JulioさんならびにLeonardoさんは1ヶ月半、Valeriaさんは3ヶ月滞在し、乳酸菌の粘膜免疫調節機構に関する研究交流・共同研究を実施しました。Julioさんは、JSPS外国人特別研究員として2009年11月に初来日して以来、JSPS外国人研究者招へい事業や二国間交流事業等を含め今回で7回目の来日となります。Leonardoさんは、昨年のCOLABSによる受入に次いで2度目となり、Valeriaさんは初来日です。来日期間中、知のフォーラム1<sup>st</sup>ステージ「Frontiers in Agricultural Immunology」と2<sup>nd</sup>ステージ「Food safety and functional evaluation」に参加し、他の海外研究拠点研究者やCFAIメンバーと研究交流を積極的に行うことができました。Julioさんは、1<sup>st</sup>ステージのシンポジストとしてイムノバイティクスと宿主の相互作用に関する最新知見を披露すると共に、ユースプログラムでは、国際共同研究の重要性についてご教示頂きました。LeonardoさんとValeriaさんは、ユースプログラムでそれぞれの共同研究内容について発表(Leonardoさん優秀発表賞受賞)し、拠点メンバーとの交流をさらに深めました。共同研究では、CERELA保有の乳酸菌についてCFAIが保有する免疫調節機能評価系を用いてイムノバイオティクスとしての解析を開始しました。また今後の「イムノバイオゲノミクス」による発展的展開について相互の詳細な研究打合せを行うことができました。さらに、海外拠点メンバーを交えて国際共著論文の打合せも出来、国際共同研究の発展とその成果が大いに見込まれ、有意義な機会となりました。Valeriaさんは、来年1月から1ヶ月半の2度目の来日で、さらに共同研究を推進する予定です。

知のフォーラム参加



共同研究打合せ



コーディネーターとの打合せ



他の海外拠点メンバーとの交流



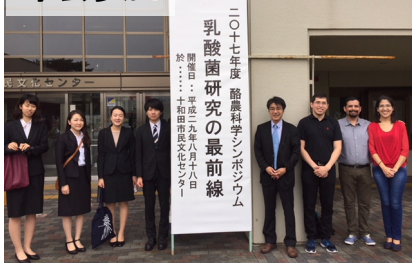
研究風景



学生との研究交流



学会参加



学会参加



学部3年生との交流



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以下、来日した3名からの感想です。

- The principal activity of my visit to Japan was to participate in the Tohoku Forum for Creativity Thematic Program 2017 “*New Horizons in Food Science via Agricultural Immunology*” and the Tohoku Youth program 2017 “*Frontiers in Agricultural Immunology*”. My visit allowed me to analyze results, define general and specific objectives, set priorities, allocate tasks and strengthen the research collaboration between the members of the Core-to-Core Program, especially between the CERELA-CONICET and the CFAI of Tohoku University. The visit was undoubtedly of great importance to strengthening cooperation activities already underway between the groups of Argentina and Japan, and to start new tasks in collaboration with other members of the Core-to-Core Program. The Core-to-Core Program is an excellent mechanism for promoting and strengthening scientific collaborations between the member countries because it allowed us to have several fruitful discussions with Japanese and foreign scientists. The members of the CFAI prepared an excellent schedule of meetings, visits and discussions for foreign scientists. The discussions of research projects in the fields of animal, plant and fish immunology were excellent opportunities for information exchange, and I found the open and honest discussions very valuable. I had also meetings and discussions with several students belonging to Tohoku University to analyze results, and define future objectives for their research projects. I was very impressed with the very organized and systematic approach being undertaken by CFAI professors to give students the possibility to show their research projects in the Tohoku Youth program. I should confess that it was one of my favorite activities during my visit to Japan. It was also a great experience for the students of my laboratory that visited Japan with me. I want to offer my sincere thanks for the CFAI, the Tohoku Forum for Creativity and Core-to-Core program members for their kindness and help throughout my stay in Sendai. (Julioさんより)

- During my stay in Japan, I was able to participate in the Tohoku Forum for Creativity Thematic Program 2017 “*New Horizons in Food Science via Agricultural Immunology*” and the Tohoku Youth program 2017 “*Frontiers in Agricultural Immunology*”. I presented my research work and received positive comments from Japanese and foreign scientists as well as the students of Tohoku University. I was a wonderful experience for me to exchange ideas and I was very happy to be awarded for my work. I also had the opportunity to participate in research activities related to the project “*Immunobiogenomics: genomics-based studies to provide insights into how immunobiotic bacteria stimulate the mucosal immune system*” from Drs. Haruki Kitazawa (Japan) and Julio Villena (Argentina). I talked and discussed with Japanese students and researchers working in the field of immunology and genomics. It was a great experience to me to listen about the projects that are conducting Japanese scientists in the CFAI. I would like to thank the JSPS Core-to-Core program for allowing me to come to Japan to live this great scientific and cultural experience!! (Leonardoさんより)

- The main purpose of my visit to Food & Feed Immunology Group and Livestock Immunology Laboratory Unit of CFAI, Graduate School of Agricultural Science, Tohoku University was to carry out studies and research activities on the “*Immunoregulatory capacities of the probiotic strain *Lactobacillus fermentum* UCO-979C*”. These studies are part of the JSPS Core-to-Core Program A (Advanced Research Networks) entitled “*Establishment of international agricultural immunology research-core for a quantum improvement in food safety*”. The studies will also contribute to concluding my PhD thesis. The opportunity of implementing porcine intestinal epithelial cells as useful human model in my investigations has been extremely helpful. We believe that it will be possible to get publication in a high impact journal with the results obtained in these experiments. In addition, the results impelled us to perform deeper investigations and so further work is planned. A second visit to the Food & Feed Immunology Group of Tohoku University in next year is already scheduled. As part of above mentioned international research project, I also collaborated in the experiments aimed to evaluate the effects of immunobiotics in different cell lines for comparative studies of strains from different sources and I participated in the genome sequencing of several lactic acid bacteria for further comparative studies. I also had the opportunity to participate in discussion activities related to projects from students of the Food and Feed Immunology Group. I was able to collaborate in the preparation of oral and poster presentations of students from the group, who received an English Presentation Award. Finally, I deeply appreciate for the great support by Core-to-Core program. (Valeriaさんより)

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