



# 2nd Tohoku University-Sichuan University Pharmaceutical Sciences Collaboration Symposium

September 24-25, 2019

Sendai

Graduate School of Pharmaceutical Sciences, Tohoku University  
Building C, Room 101

Organized by Graduate School of Pharmaceutical Sciences, Tohoku University  
Co-organized by Tohoku University Advanced Graduate Program for Future Medicine and Health Care  
Sponsored by Japan Agency for Medical Research and Development (AMED)  
Supported by Sendai City

## Preface

On behalf of the organizing committee, I would like to express our deep gratitude to all participants for their presence at the 2<sup>nd</sup> Tohoku University-Sichuan University Pharmaceutical Sciences Collaboration Symposium in Sendai September 2019.

This symposium is based on our exchange agreement at the first symposium which was successfully held at West China School of Pharmacy, Sichuan University in May 4<sup>th</sup>, 2019 in Chengdu. It was the very great opportunity for both universities to exchange scientific opinions on recent advances in pharmaceutical sciences.

We hope all of the participants will have fruitful time for discussion and information exchange during this symposium. One of the important missions of our exchange program is to encourage young researchers who will succeed and expand our activities and we really hope the further promotion of our academic exchange toward the next generation.

I am very grateful for all your generous supports.

Yoshinori Kondo, Ph.D.,  
Dean and Professor  
Graduate School of Pharmaceutical Sciences  
Tohoku University



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### -PROGRAM-

**TUESDAY, SEPTEMBER, 24, 2019**

Graduate School of Pharmaceutical Sciences, Tohoku University  
 Building C, Room 101

Opening Remarks	
13:00~13:05	Prof. Yoshinori Kondo (Tohoku University)
13:05~13:10	Prof. Yong Qin (Sichuan University)
Lectures	
Chair: Prof. Hidetoshi Tokuyama (Tohoku University)	
13:10~13:40	Prof. Yong Qin (Sichuan University) Title: Total syntheses of atropurpuran and arcutinine
13:40~14:10	Prof. Yoshiharu Iwabuchi (Tohoku University) Title: Highly chemoselective aerobic alcohol oxidation using AZADO-copper catalysis
14:10~14:40	Prof. Jinsong Yang (Sichuan University) Title: Study on the synthesis of natural glycosides
Student's Session (graduate: 15 min, under graduate: 7 min)	
Chair: Prof. Masanori Shigeno (Tohoku University)	
14:40~14:55	Yuse Kuriyama (Supervisor: Prof. Yoshiharu Iwabuchi, Tohoku University) Title: Catalytic Regioselective Intramolecular Aminolysis of 3,4-Epoxy Amines
14:55~15:10	Wei Huang (Supervisor: Prof. Jinsong Yang, Sichuan University) Title: Stereoselective Synthesis of 3-Deoxy-D-manno-oct-2-ulosonic acid(Kdo) Glycosides
15:10~15:17	Kohta Ide (Supervisor: Prof. Hidetoshi Tokuyama, Tohoku University) Title: Synthetic studies on lecanindole D
15:17~15:24	Katsuya Nakai (Supervisor: Masahiko Yamaguchi, Tohoku University)

	Title: Synthesis of Cycloalkyl/Steroidal Heteroaryl Sulfides Using Rhodium-Catalyzed Heteroaryl Exchange Reaction
15:24~15:39	Rong Guo (Supervisor: Prof. Qin He, Sichuan University) Title: Enhanced stability and efficacy of GEM-TOS prodrug by co-assembly with antimetastatic shell LMWH-TOS
*Coffee Break (20 min)*	
Lectures	
Chair: Prof. Noriyasu Hirasawa (Tohoku University)	
16:00~16:30	Prof. Tomohiro Konno (Tohoku University) Title: Intelligent biointerfaces for smart nanomedicine and cell engineering
16:30~17:00	Dr. Seon Hwa Lee (Tohoku University) Title: Alternative approach for biomarker discovery through chemical modifications
17:00~17:30	Prof. Qin He (Sichuan University) Title: Study on highly Efficient Anti-Tumor nano-delivery System
* Banquet (18:00~)*	

## WEDSDAY, SEPTEMBER, 25, 2019

Graduate School of Pharmaceutical Sciences, Tohoku University  
Building C, Room 101

Lectures	
Chair: Prof. Masahiko Yamaguchi (Tohoku University)	
09:00~09:30	Prof. Noriyasu Hirasawa (Tohoku University) Title: Regulation of thymic stromal lymphopoietin, a master cytokine of allergy
09:30~10:00	Prof. Xun Sun (Sichuan University) Title: Designing lymph node-targeted nanocarriers for improved potency of cancer vaccines
10:00~10:30	Prof. Yotaro Matsumoto (Tohoku University) Title: Development of evaluation method for phenylsulfate, a biomarker of diabetic kidney disease, and organic synthesis and pharmacokinetics of TPL inhibitor as a therapeutic candidate
*Coffee Break (10 min)*	
Student's Session (graduate: 15 min, under graduate: 7 min)	
Chair: Prof. Yotaro Matsumoto (Tohoku University)	
10:40~10:55	Rin Ichinohe (Supervisor: Prof. Noriyasu Hirasawa, Tohoku University) Title: Application of TiO <sub>2</sub> nanoparticles to anti-allergic materials

10:55~11:02	Rio Yamamoto (Supervisor: Prof. Noriyasu Hirasawa, Tohoku University, Advanced Graduate Program for Future Medicine and Health Care) Title: Analysis of stability of mutated cytokine receptor-like factor 2
11:02~11:17	Yucheng Xiang (Supervisor: Prof. Yuan Huang, Sichuan University) Title: improved anticancer efficacy of doxorubicin mediated by human-derived cell-penetrating peptide dNP2
11:17~11:32	Ryota Kujirai (Supervisor: Prof. Yoshihisa Tomioka, Tohoku University) Title: Metabolite analysis of MA-5, a novel therapeutic drug candidate for mitochondrial disease
11:32~11:39	Li Hao (Sichuan University) Title: The data-mining of ADR signals for Cetuximab with the measures of disproportionality, based on real world data
11:39~11:46	Xuan He (Sichuan University) Title: Study on the effect and mechanism of didydrooroate dehydrogenase inhibitors on melanoma
11:46~11:53	Jiixin Li (Sichuan University) Title: Mesenchymal stem cell extracellular vesicles-mediated drug delivery
11:53~12:00	Yuting Li (Sichuan University) Title: Advances in the research on the two sides of nicotine: pathogenicity and drug transformation
*Lunch*	
Lectures	
Chair: Prof. Tomohiro Konno (Tohoku University)	
13:30~14:00	Prof. Asuka Inoue (Tohoku University) Title: Understanding and manipulating signal transduction of G-protein-coupled receptors
14:00~14:30	Dr. Akihiro Sugawara (Tohoku University) Title: Construction of Silicon Containing Natural Product-like Libraries toward Expanding Chemical Space
Student's Session (graduate: 15 min, under graduate: 7 min)	
Chair: Prof. Mieko Arisawa (Tohoku University)	
14:30~14:45	An Cheng (Supervisor: Prof. Kohji Fukunaga, Tohoku University) Title: FABP3 ligands inhibit $\alpha$ -synuclein oligomerization in Neuro2A cells
14:45~15:00	Midori Suzuki (Supervisor: Prof. Atsushi Matsuzawa, Tohoku University) Title: Nuclear-accumulated SQSTM1/p62-based ALIS act as microdomains sensing

	cellular stresses and triggering oxidative stress-induced parthanatos
15:00~15:15	Gan Luo (Supervisor: Supervisor: Prof. Zhenlei Song, Sichuan University) Title: The lessons learned from synthesizing sila-8H-indole via C-H bond amination
15:15~15:30	Kotaro Yasoshima (Supervisor: Prof. Takayuki Doi, Tohoku University) Title: Synthetic study for novel Foxo3a inhibitor JBIR-141
*Coffee Break (20 min)*	
Lectures	
Chair: Prof. Yoshiharu Iwabuchi (Tohoku University)	
15:50~16:20	Prof. Zhenlei Song (Sichuan University) Title: Rhodium-Catalyzed Reaction of Silacyclobutanes with Unactivated Alkynes to Afford Silacyclohexenes
16:20~16:50	Prof. Qiantao Wang (Sichuan University) Title: The pros and cons of molecular dynamics simulation in drug discovery
16:50~17:20	Prof. Takayuki Doi (Tohoku University) Title: Synthesis and biological evaluation of natural product and its derivatives
Closing Remarks	
17:20~17:25	Prof. Masahiko Yamaguchi (Tohoku University)

## ～懇親会のご案内～

**日時： 9月24日（火） 18時より**

**場所： 生協1F（麺コーナー前）**

### 日本側参加費（当日お支払いください）

**教員 2,000円（講演者の先生も歓迎）**

**学生 1,000円**

**申込締切日： 9月17日（火）**

**申込先： 分子設計化学分野**

**事務補佐 安倍**

**aiko.abe.a5@tohoku.ac.jp**

**※当日申込も受け付けますが、できるだけ事前にお知らせ願います。**

**2<sup>nd</sup> Tohoku University–Sichuan University Pharmaceutical Sciences  
Collaboration Symposium**

Graduate School of Pharmaceutical Sciences, Tohoku University

**Contact**

Professor Masahiko Yamaguchi

TEL: 022-795-6812

e-mail: [masahiko.yamaguchi.c8@tohoku.ac.jp](mailto:masahiko.yamaguchi.c8@tohoku.ac.jp)

Professor Hidetoshi Tokuyama

TEL: 022-795-6887

e-mail: [hidetoshi.tokuyama.d4@tohoku.ac.jp](mailto:hidetoshi.tokuyama.d4@tohoku.ac.jp)

Associate Professor Mieko Arisawa

TEL: 022-795-6814

e-mail: [mieko.arisawa.d2@tohoku.ac.jp](mailto:mieko.arisawa.d2@tohoku.ac.jp)