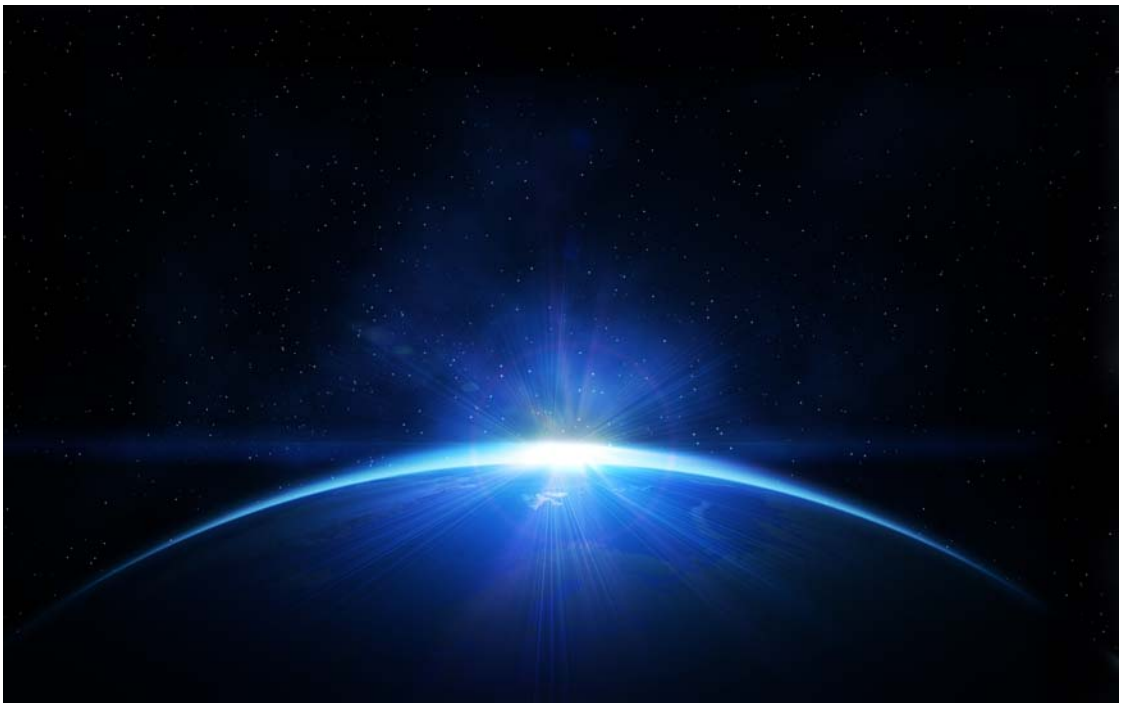
2012 Northeastern Asian Symposium



Sep. 19th-20th 2012

Sendai, Japan

Organized by Tohoku University

Supported by JSPS, NSFC, NRF

nanomedicine molecular science

nanomedicine Molecular Science since 2011

2012 Northeastern Asian Symposium
Sep. 19th-20th 2012, Sendai, Japan

CONTENTS

19th September

20th September

PROGRAM

19th September

Session No./Time	Chairperson	Speaker	Title	Page
8:30-8:35	Opening: Prof. Noriaki OHUCHI (JPN)			
1-1 8:35-8:55	Prof. Ning GU	Dr. Kohsuke GONDA	Nano-bio imaging of disease mechanisms with fluorescent nano-particles	1
1-2 8:55-9:20		Dr. Xiaolin BI	Coordinating intrinsic mechanisms to treat cancer	3
1-3 9:20-9:45	Prof. Youqing SHEN	Prof. Tingfei XI	Distribution, translocation and accumulation of silver nanoparticles in rats	5
1-4 9:45-10:10		Prof. Jeewon LEE	Protein Nanoparticles for Nanomedicine	7
1-5 10:10-10:35		Prof. Ning GU	Magnetic Nanomaterials for Theranostics	9
10:35-10:45	**Coffee break**			
2-1 10:45-11:10	Prof. Weon Tae LEE	Prof. Jooyoung LEE	Enhanced protein function prediction by improved community detection	11
2-2 11:10-11:35		Prof. Hyun Soo CHO	Structural Studies on EGF Receptors and anti-EGFR mAB Drugs	13
2-3 11:35-12:00	Prof. Takami YAMAGUCHI	Prof. Hongwei MA	Research on the sugar coating of acidophilic archaea is a proton shelter	15
2-4 12:00-12:30		Prof. Kazuhiko ISHIHARA	Specific internalization of polymeric nanoparticles to cells	17
12:30-13:30	**Lunch**			
3-1 13:30-13:55	Prof. Insup NOH	Prof. Shengmin ZHANG	A General Bi-template Co-assembly Strategy for Biomimetic Fabracation of Nano-bone Repairing Materials and Their Related Evaluation	19
3-2 13:55-14:20		Prof. Jiang CHANG	Biomaterials with bioactive composition and nano-structure for tissue regeneration	21
3-3 14:20-14:45	Prof. Kazuhiko ISHIHARA	Prof. Hiroo IWATA	Cell LEGO	23
3-4 14:45-15:10		Prof. Changsheng LIU	Design, Manufacture, Cellular Response and Biomedical Application of Nano-biomaterials	25
15:10-15:25	**Coffee break**			
4-1 15:25-15:50	Prof. Yoshinobu BABA	Dr. Guozhang ZOU	Live-Cell Imaging Using an Aggregation-Induced Emissive Phosphopeptide Probe Reveals Temporal and Spatial Regulation of Tyrosine Phosphorylation	27
4-2 15:50-16:15	Prof. Hiroshi WADA	Prof. Akihiko ISHIJIMA	Coordinated reversal of flagellar motors on a single Escherichia coli cell	29
4-3 16:15-16:40		Prof. Young-Rok KIM	Detection of pathogenic microorganisms using surface-engineered impedimetric sensor	31
4-4 16:40-17:05	Prof. Akihiko ISHIJIMA	Dr. Tae-Young YOON	Real-time single-molecule co-immnunoprecipitation analyses reveal cancer-specific Ras signaling dynamics	33
4-5 17:05-17:30		Prof. Hiroshi WADA	Structure and function of prestin, the motor protein in outer hair cells, which is the origin of the high sensitivity and frequency selectivity of our hearing system	35
4-6 17:30-18:00	Prof. Hiroo IWATA	Prof. Yoshinobu BABA	Nanobiodevice based single biomolecule and single cell sensing for cancer diagnosis and cancer therapy	37
18:30-20:00	**Reception**			

20th September

Session No./Time	Chairperson	Speaker	Title	Page
1-1 9:00-9:25	Dr.Prof. Yueqing GU	Prof. Sebyung KANG	Developing Protein Cage Complex as a Multifunctional Delivery Nanoplatform	39
1-2 9:25-9:50		Associate Prof. Mitsuo UMETSU	Smart protein design for interface molecules in nano world	41
1-3 9:50-10:15	Prof. Yuko ICHIYANAGI	Prof. Youqing SHEN	The Three Elements Essential for Translational Nanocarriers	43
1-4 10:15-10:40		Prof. Hyungil JUNG	Drawing lithography for microneedles: Fundamentals and biomedical applications	45
10:40-10:50	Coffee break			
2-1 10:50-11:15	Prof. Shengmin ZHANG	Prof. Yueqing GU	Dynamic investigation of breast tumor response to the targeted therapy by using gold nanoparticle based molecular beacons	47
2-2 11:15-11:40		Prof. Insup NOH	Natural polymer-based injectable hydrogels for tissue engineering applications	49
2-3 11:40-12:05	Prof. Wei ZHANG	Prof. Takami YAMAGUCHI	Computational biomechanics of physiological flows over micro to macro scales	51
2-4 12:05-12:30		Prof. Sun Min KIM	Effect of the Simply Fabricated Nanopatterns on Cellular Contact Guidance	53
12:30-13:30	Lunch			
3-1 13:30-14:00	Prof. Xingyu JIANG	Prof. Fuyuhiko TAMANOI	Controlled Release of Anticancer Drugs by Using Nanomachine-Equipped Nanoparticles	55
3-2 14:00-14:25		Prof. Xi Guang CHEN	Oleoyl-carboxymethyl chitosan nanoparticles(OCMCS-NP) as drug carriers of macromolecular drugs	57
3-3 14:25-14:55	Prof. Jooyoung LEE	Prof. Weon Tae LEE	Molecular Function and Structure-based Drug Development by Structural Biology	59
3-4 14:55-15:20	Prof. Tsuneo URISU	Prof. Xin ZHANG	Design, Preparation and Application of Nucleic Acid Delivery Carriers	61
3-5 15:20-15:30		Prof. Xingdong ZHANG		63
15:30-15:50	Coffee break			
4-1 15:50-16:15	Prof. Fuyuhiko TAMANOI	Prof. Yuko ICHIYANAGI	Functional Magnetic Nanoparticles for Hyperthermia Treatment	65
4-2 16:15-16:45		Prof. Xingyu JIANG	Gold Nanoparticles: How far can we go in theranostics	67
4-3 16:45-17:10	Associate Prof. Mitsuo UMETSU	Prof. Tsuneo URISU	Development of Neural Network Screening Device	69
4-4 17:10-17:35		Prof. Wei ZHANG	New strategy to mimic a blood vessel: from 2D to 3D	71
17:35-17:50	Closing: Prof. Xingyu JIANG (China), Prof. Weon Tae LEE (Korea), Prof. Noriaki OHUCHI (JPN)			
18:30-20:00	Dinner			