

CONTENTS

I. Outline of the Noda Institute for Scientific Research	iii
II. Achievement of Research Activities in 2014	v
Reproduced Papers	
F. J. JIN, S. HARA, A. SATO, and Y. KOYAMA Discovery and analysis of an active long terminal repeat-retrotransposable element in <i>Aspergillus oryzae</i> . Reproduced from <i>J. Gen. Appl. Microbiol.</i> , 60 : 1–6 (2014) with permission from Applied Microbiology, Molecular and Cellular Biosciences Research Foundation.	1
T. OGUMA, S. KITAO, and M. KOBAYASHI Purification and characterization of cycloisomaltooligosaccharide glucanotransferase and cloning of <i>cit</i> from <i>Bacillus circulans</i> U-155. Reproduced from <i>J. Appl. Glycosci.</i> , 61 : 93–97 (2014) with permission from The Japanese Society of Applied Glycoscience.	7
K. ITO and Y. KOYAMA Analysis of specific proteolytic digestion of the peptidoglutaminase-asparaginase of koji molds. Reproduced from <i>J Biosci Bioeng.</i> 118 : 253–255 (2014) with permission from The Society for Biotechnology, Japan.	13
R. WADA, F. J. JIN, Y. KOYAMA, J. MARUYAMA, and K. KITAMOTO Efficient formation of heterokaryotic sclerotia in the filamentous fungus <i>Aspergillus oryzae</i> . Reproduced from <i>Appl Microbiol Biotechnol.</i> , 98 : 325–334 (2014) by copyright permission from Copyright Clearance Center.	17
N. KATO, M. TOKUOKA, Y. SHINOHARA, Y. KOYAMA, and H. OSADA Genetic safeguard against mycotoxin production and cyclopiazonic acid biosynthesis in <i>Aspergillus oryzae</i> . Reproduced from <i>JSM Mycotoxins</i> , 64 : 197–206 (2014) (DOI: http://dx.doi.org/10.2520/myco.64.197) with permission from Japanese Society of Mycotoxicology.	27
Japanese Patents Laid-Open	33
Titles of Oral and Poster Presentations	34
III. Report on the Research Assisted by the NISR Research Grant in 2013	35
Research Grant	
Ryouichi FUKUDA (The University of Tokyo) Maintenance of membrane homeostasis by the remodeling of acyl residues in phospholipids	36
Yoshimi KAKINUMA (Ehime University) Molecular machinery and regulatory system of vacuolar amino acid compartmentalization as a new target for yeast engineering	38
Seiji MASUDA (Kyoto University) Development of an innovative protein production system using second-generation mRNA export proteins created by domain engineering	41
Norihiko MISAWA (Ishikawa Prefectural University) Construction of an efficient system for the production of red pepper carotenoids and new derivatives	43
Ken SATO (The University of Tokyo) Investigation of the molecular mechanisms regulating the secretion from the endoplasmic reticulum in <i>Saccharomyces cerevisiae</i>	45
Hiroshi UEMURA (National Institute of Advanced Industrial Science and Technology) Development of an efficient secretory production of ricinoleic acid, a petrochemical replacement of bioplastics, in fission yeast <i>Schizosaccharomyces pombe</i>	47

Young Investigator Research Grant

Teigo ASAI (Tohoku University)	
Structural diversity of fungal secondary metabolites induced by chemical epigenetic manipulation	49
Daisuke HAGIWARA (Chiba University)	
Molecular mechanism of stress tolerance in conidia of <i>Aspergillus</i> species	51
Takashi KOYANAGI (Ishikawa Prefectural University)	
Genetic engineering of <i>Kluyveromyces marxianus</i> for effective production of the rose-like odor 2-phenylethanol	53
Motohiro TANI (Kyushu University)	
Mechanisms of regulation of membrane phospholipids metabolism and its physiological significance	55