

# ASAHIKAWA MEDICAL UNIVERSITY

## RESEARCH BULLETIN

### VOL. 13

## CONTENTS

<b>Commissions</b>	
Telemedicine Conducted by the Department of Ophthalmology and the Medicine and Engineering Combined Research Institute in Asahikawa Medical University.....	ISHIKO Satoshi 2
<b>Essay</b> .....	KITA Shinichi 9
<b>Submissions</b>	
Experience that nursing students get from the nursing skills assessment practicum aiming to instill readiness for acquiring nursing skills -Report analysis done after the completion of a specified situation assignment during the first year of college -.....	ICHIJO Akemi, KANNARI Yoko, MASUDA Yumiko 11
Relation of a clinical nurse's nursing practice and moral development .....	SERITA Noriko 19
<b>Doctoral Dissertations</b>	
FLEXOR ACTIVITY BY INTRAMEDULLARY PRESSURE IN RABBIT FEMORAL BONE:	
An experimental study on thigh pain after total hip arthroplasty .....	NAKAMURA Toshiki, ITO Hiroshi, ATSUTA Yuji, TANINO Hiromasa, NISHIMURA Ikuya, MATSUNO Takeo 32
High Glucose Increases the Expression of Neurokinin1 Receptors in Cultured Neonatal Rat Spinal Neurons .....	ISHIZEKI Kanaki, ABIKO Atsuko, ITO Hiroshi, HIRANO Fuminori, TAKIYAMA Yumi, HANEDA Masakazu 38
<b>Commissions</b>	
2010/2011 Innovative Research in Life Science	
1) Efficacy of Ketamine Ointment .....	MAMIYA Keiko 50
2) Role of microglia on remyelination .....	TANAKA Tatsuhide 51
3) Protecting Mechanisms against Reactive Oxygen Species (ROS) in Mammalian Spermatozoa .....	HARUMI Tatsuo 52
4) Establishment of sensitive cell physiological methods applicable to mouse intraocular muscles and their application to the study of signal transduction mechanisms .....	AKAO Teppei 53
5) Alteration of brain function by the intranasal administration of chemical compound .....	MIYAZONO Sadaharu 54
6) Relationship between structure of anthocyanins and effects on human cancer cells .....	TAKEUCHI Masayuki 56
7) Development of methods for analysing liver multistep carcinogenesis with adeno-associated virus (AAV) .....	YAMAMOTO Masahiro 57
8) Effect of yoga on pregnancy outcome.....	KAWANISHI Yasuyuki 58
9) Establishment of the prediction method that used the expression of anion transporter as an index of the therapeutic effect of rheumatoid arthritis .....	KOMURA Keiji 60
10) Effects of Metformin on Contrast-Induced Nephropathy .....	TAKIYAMA Yumi 61
11) The analysis of remnant liver function considering liver regeneration after liver surgery .....	TANIGUCHI Masahiko 62
12) Revealing the Influence of HMGB1 on Postoperative Complication of Abdominal Surgery .....	WATANABE Kenji 65
13) Motion restored to the paralyzed larynx with implantable stimulator.....	NOMURA Kenichirou 67
14) Analysis of the male infertility and habitual abortion and their application to clinical medicine .....	MIYAKAWA Hiroe 68
15) Evaluation of dual-time-point 18F-FDG PET/CT for the differentiation between malignant lymphoma and benign lymph nodes.....	NAKAYAMA Michihiro 69
16) Study of functional localization in the supplementary motor area .....	ANEI Ryougo 71
17) The effect of bone repair by intravenous injection of adipose tissue-derived stem cells .....	TAKEKAWA Masanori 73
18) Immunoassay Standardization for Serum Cystatin C—preparation of serum Matrix-based Reference material .....	AKASAKA Kazumi 75
19) A survey of the recognition by junior-high-school students about brain death organ transplantation .....	MORI Hiromi 77
20) Tryptophan metabolism and higher brain function .....	KANAI Masaaki 79
21) The study of the implementation of the quantum mechanical boundary and the Casimir effect .....	FUJII Toshiyuki 82
22) Effects of a decrease in the bifurcation exponent on the human retinal microcirculation .....	TAKAHASHI Tatsuhisa 83
23) Acquisition of heat-resistant nature in freeze-dried mouse and human spermatozoa .....	KUSAKABE Hirokazu 86
24) Analysis of neuronal death mechanism and search for novel therapeutic agent in sporadic amyotrophic lateral sclerosis. ....	SAWADA Jun 88
25) Establishment of bronchio-alveolar stem cell lines .....	SASAKI Takaaki 90
2011 Innovative Research in Life Science	
New Role of Capillary in Tissue Regeneration. — AMU Reserch Cluster for Devlopment of Vascular Reserch and its Clinical Application — .....	KAWABE Junichi 92
Development of rapid analyzing system for ion channel genes and its application to diagnosis and therapy of channelopathies .....	MIYAZU Motoi 97
Breakthrough for the development of artificial joint without loosening .....	MATSUNO Takeo 100
Education Methods for Nursing Students when Performing Their First Venous Blood Specimen Collection .....	KANNARI Yoko 104
JICA training course JFY2012 “Health Administration for Regional Health Officer for Africa” .....	YOSHIDA Takahiko / FUJII Tomoko / KITAMURA Kumiko 112
<b>News</b> .....	IWASAKI Hirishi / HIROKAWA Hiroyuki / KITAMURA Kumiko / ARA Hitomi 123
<b>Students's pages</b> .....	KOBAYASHI Takahiro 135
<b>Books</b> .....	FUJIO Hitoshi/ HASEBE Naoyuki 138
<b>Material</b> .....	FUJIO Hitoshi 140
<b>Editor's Note / Cover Story</b> .....	144