出席台拉立三邊科技合作諮議年會

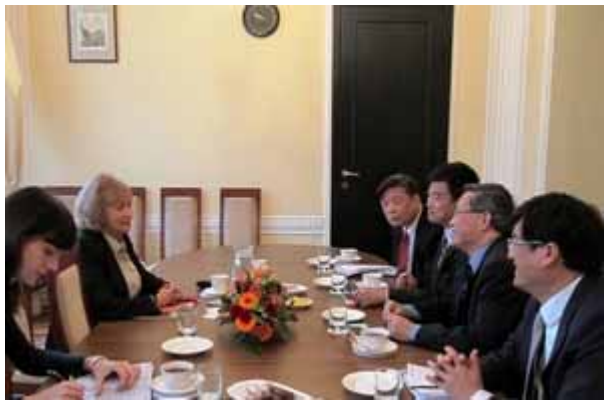
及訪問波蘭科學暨高等教育部與波蘭科學院出國報告

一、緣起及目的

台灣-拉脫維亞-立陶宛三邊科技合作諮議 年會依照三方協議，每年輪流在台北、拉脫維亞首都里加及 立陶宛首都維爾紐斯三地輪流舉行，2013 年年會經上次(第 11 次)年會決議於 2013 年 10 月 24、25 日在拉國首府里加舉行，本會賀陳副主任委員擬率國合處林處長宗泰、傅研究員顯達，並會同駐拉國代表葛光越、駐德科技組組長彭雙俊、林惠珍秘書共同出席；另外，鑑於波蘭位居中東歐中心，無論就人口或疆域而言，均為中東歐大國，且有極深厚之科技發展潛力，近年來，本會推動台波科技合作已有初步成效，為進一步強化 台波科技合作，並擴展至鄰近國家，本會考慮於波蘭設科技組，為實地評估並了解波方想法，本次訪團亦決定順道訪問波蘭華沙，拜會該國高教部次長及科學基金會主席，賀陳副主委於 10 月 22 日出發，23 日順道訪波蘭華沙，拜會該國高教部次長及科學基金會主席，並於當日赴里加，10 月 27 日返台，林處長宗泰及傅研究員顯達則於 10 月 21 日先行出發，22 日抵華沙，23 日同赴里加，26 日提前返抵台灣。

二、重要行程內容與過程

本會賀陳副主任委員弘及林處長宗泰及傅研究員顯達在駐捷克科技組組長謝水龍博士陪同下，於 10 月 23 日早上 8 時 30 分即赴華沙波蘭科學暨高等教育部拜會該部政務次長 Prof. Maria E. Orlowska，O 次長表示熱烈歡迎賀陳副主委所率國科會訪團訪問該部，檢視雙方科技合作現況，並討論雙方未來合作方向。



雙方均同意台波二國科技合作過去無論在人員交流、合作計畫、雙邊研討會均已有令人欣慰之進展，但雙方也同意應採更有創意的合作方法，促使雙方有更多不同領域的研究人員加入合作行列。

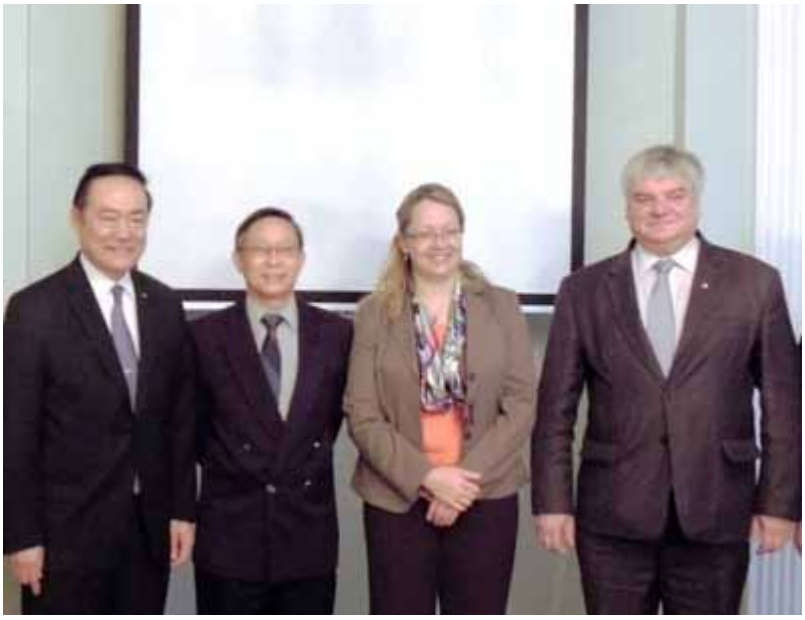
對於未來合作方向，O 次長及賀陳副主委經討論後獲致共識，將鼓勵研究人員之創新研發能力做為雙方合作的重點。藉由青年學者交流互訪，在不同的文化衝擊下，將有助於青年學者的創新研發能力。O 次長並表示，為儘速促成此一目標，雙方應考慮利用現有的合作機制，儘速推動促成此事。

當日 11 時，賀陳副主委率團員至波蘭科學院拜會波蘭科學院院長 Prof. Michal Kleiber，賀陳副主委表示，感謝 K 院長在主持該國國家型大活動—諾貝爾和平獎論壇—百忙之中，仍能抽

空接見國科會代表團，隨後雙方進入緊湊之會談討論，雙方同意未來在能源、醫藥、資訊安全加強合作。

下圖為賀陳副主委率團員與波蘭科學院院長 Prof. Michal Kleiber 合影

賀陳副主委一行在華沙停留約五小時，即轉赴拉脫維亞首都里加訪問，參加 10 月 24 日至 26 日參加在拉脫維亞科學院舉行的 2013 年台灣－拉脫維亞－立陶宛三邊科技合作諮議會議。2001 年起台灣就與波羅的海地區的拉脫維亞及立陶宛進行科技交流。今年是三邊科技合作機制執行第 12 年。



在三邊次長級會議中，拉脫維亞教育科學部次長李匹娜（Sanda Liepina）與立陶宛教育科學部次長魏特庫斯（Rimantas Vaitkus）同時肯定這 12 年來的成功。賀陳弘表示，從 2001 年開啟三邊共同研究合作機制以來，透過這個合作平台，學者間密切交流，近年來申請案件成長了 3 倍，今年更是創新高，研究品質大幅提升。

他指出，3 國的共識是希望在現有的互動基礎上能更進一步增加歐洲聯盟的合作計畫，深化交流。

中華民國駐拉脫維亞代表葛光越全程參加會議。他表示，波羅的海國家的人民是善良、勤奮的且具有潛力的，SKYPE（網路通訊軟體）即在此研發。

他指出，台灣與這個地區的貿易享有巨幅順差，希望從科研出發逐漸走向產業合作，把台灣的成功經驗分享給波羅的海的國家。

訪團在里加（Riga）還參訪了重要研究機構，拜會拉脫維亞教育暨科學部、有機合成中心，以及拉脫維亞大學固態物理學中心。

三、台拉立三邊科技合作第12次年會主要決議

台拉立三邊科技合作第12次年會已於本(102)年10月24日在拉脫維亞首府里加召開，由拉國研究委員會主席兼科學院副院長Prof. Andrejs Silins主持，立陶宛教科部次長Prof. Rimantas Vaitkus及本會賀陳副主委弘分別率團參加，我國駐拉脫維亞代表處葛光越代表亦全程參加。本次會議計通過繼續補助進行中計畫案5件及審議通過2014年新申請案4件，並由三方正式簽署會議紀錄，其中尚包括通過1,明年初於里加辦理人文社會科學三邊研討會，藉以撮合鼓勵三方研究人員提出人文社會科學類合作研究計畫，2,推動台拉立三方年輕研究人員之交流，3,交換三方有關研究計畫評審標準及程序之資訊，4,下(13)屆台拉立三邊科技合作年會訂於明年11月初於立陶宛首府維爾紐斯召開等(會議紀錄如附錄二)。前述審查通過之4件新計畫台灣方面之主持人及計畫名稱為:

1.台大高分子科學與工程學研究所徐善慧教授「間葉幹細胞與癌幹細胞對奈米粒的反應」
2.清大材料科學工程學系（所）周卓煇教授「以新穎材料與技術製備超高演色性及高太陽光譜相似性的OLED 照明光源」
3.陽明大學醫學系內科學科吳俊穎教授「早期檢測胃癌相關之自體抗體的發展和驗證」
4.中山大學材料與光電科學學系周明奇教授「非極性ZnO磊晶薄膜---生長結構及光學特性研究」

四、心得及建議事項

1.波海三國與台灣有類似的國際處境，均在大國旁求生存，在政治經濟上應有可互為參考之處，我國與波海的合作不應只限於科技研究，合作硬體建議擴及人文、社會、政治等領域。

2.拉脫維亞的有機合成中心是蘇聯時期重點發展醫藥的研究機構，其合成的藥品曾供應蘇聯全區，在製藥方面有長足的經驗，我國製藥業者應尋求與該中心合作之機會。

3.台灣與波蘭目前均推動創新研究，創新的靈感在不同的文化衝擊下經常會有意想不道的成果，波蘭青年科學家的基礎科學底子甚佳，我國應加強台波青年科學家的交流，使雙方年輕研究人員在不同的文化衝擊下，能產生創新的靈感。

附錄一

台拉立年會工作內容

臺灣-拉脫維亞-立陶宛三邊科技合作年會，主要工作是審核通過新申請的三年期台拉利三邊合作計畫，以及聽取舊計畫的進度報告及結案成果報告，決定是否繼續補助或同意結案。
每一審核通過之台拉立計畫，三方主持人均分別獲得每年 25,000 美元(或台幣 750,000 元)之補助；台灣的計畫，由國科會全數補助，拉、立二國的計畫經費則分別由該二國科技部每年補助 18,500 美元，其餘 6,500 美元則由我國外交部配合款補助。換言之，每通過一件台拉利三邊合作計畫，我國就要每年支付 12500 美元(6,500 美元 x 2)給拉立兩國。
但依本會與外交部約定，外交部編列之台拉立科技合作補助款額度每年以 100,000 美元為上限，因此台拉立合作年會若通過計畫件數(包括新核定及繼續補助執行中計畫)為 8 件以內，則僅外交部配合補助款就足以支應我國承諾補助拉、立二國計畫之經費，惟若超過 8 件，則每多計畫一件，國科會就要配合補助 12,500 美元(拉、立各 6250 美元)，以本(12)屆台拉立年會為例，結案(執行滿 3 年)計畫有 4 件，不涉及經費補助問題，但進行中(on-going)計畫合共 5 件，年會慣例都給予通過繼續補助，加上今年若通過 3 件新計畫，新舊合計 8 件，則補助拉、立二國之配合款恰為 100,000 美元，由外交部撥款支應即可，本會只需補助國內 PI，不必額外補助拉立二國計畫;但若今年通過4件新計畫,則本會須額外撥款補助拉、立二國 12,500 美元；若今年通過 5 件，則本會須額外撥款 25,000 美元，以此類推。

歷年來，台拉立年會對執行中之計畫均給予繼續補助，對於新計畫之通過率偷維持在 20%左右，按此比率今年申請案 25 件可通過 5 件，為最高記錄，但拉立二國財政不佳，因此判斷拉立二國代表會建議通過 4 件即可(2010 年申請案 2 建，即通過 4 件)。

至於年會上討論如何選出通過新計畫，本會發言立場一向採取下列三原則：
1.學術處初審不推薦者，本會堅持不通過。
2.請拉、立二國代表優先考量本會初審列為優先推薦之計畫。
3.若三方初審排序落差太多，無法就本會列為優先推薦之計畫中選定，再考慮非優先推薦者。

以下為今年(第 12 屆)台拉立年會將討論是否同意結案之執行滿 3 年計畫 final report，4 件執行滿 3 年(final report)計畫名稱及 PI 姓名、單位如下：

林麗瓊	國立臺灣大學凝態科學研究中心	可調變能距氮化鋁鎵與金屬氧化鋅之一維奈米結構—材料製備與光學特性分析 One-dimensional Nanostructures of Ternary AlGaN and metal doped- Zinc Oxide with Tunable Bandgaps: Growth, Characterization and Optical Properties
王志堯	國立成功大學 醫學系小兒科	蛋白質分解酶小體基因變異型與台灣、拉脫維亞、立陶宛氣喘罹病危險因子的關聯 Proteasomal gene alleles as risk factors for bronchial asthma in Latvian, Lithuanian and Taiwanese populations
楊重光	國立臺北科技大學化學工程與生物科	備製生醫和光學奈米材料 Nanoscaled functional materials for biotechnological and

	技系	optical applications
陳文翔	國立臺灣大學醫學院復健科	結合超音波與電穿孔法將藥物送入細胞或組織內以治療腫瘤 Combination of electroporation and sonoporation for efficient drug delivery into cells and tissues for tumor treatment

以下為今年(第 12 屆)台拉立年會將討論是否同意繼續補助之執行滿 2 年計畫的進度報告，3 件執行滿 2 年之期中報告計畫名稱及 PI 姓名單位如下：

余怡德	國立清華大學物理學系（所）	光與物質的同調操控 Coherent Manipulation of Matter by Light and Light by Matter
方冠榮	國立成功大學材料科學及工程學系（所）	先進鋰離子電池材料與製程開開發 Materials and Processing Development for Advanced Li Ion Batteries
劉信孚	財團法人馬偕紀念醫院醫學研究科	Parvoviruses 之分子流行病學及病毒序列變異與臨床表徵相關研究 Establishing of the framework to track molecular epidemiology of Parvoviruses and to correlate sequence variability with different clinical manifestations

以下為今年(第 12 屆)台拉立年會將討論是否同意繼續補助之執行滿 1 年計畫的進度報告，2 件執行滿 1 年之期中報告的計畫名稱及 PI 姓名單位如下：

陳俐吟	國立中山大學光電工程學系	應用於高效率高可靠性光電元件的有機光電材料之開發與研究 Synthesis and studies of organic electroactive materials for effective and reliable optoelectronic devices
林聖賢	國立交通大學應用化學系（所）	有機—無機混合奈米結構的光捕獲其激發與電荷轉移機制之研究 Excitation and charge transfer in organic-inorganic hybrid nanostructures for light harvesting.

至於今年申請案 25 件的計畫名稱及三方計畫主持人姓名單位如下頁:

Engineering & applied Sciences	Project Leader			Institute		
Project	**Lithuania**	**Latvia**	**Taiwan**	**Lithuania**	**Latvia**	**Taiwan**
Mesenchymal stem cell and cancer stem-like cell response to nanoparticle treatment 間葉幹細胞與癌幹細胞對奈米粒的反應	**Ricardas Rotomskis**	**Una Riekstina**	**Shan-hui Hsu** **徐善慧**	Institute of Oncology, Vilnius University	Faculty of Medicine, University of Latvia	Institute of Polymer Science and Engineering, National Taiwan University
New materials and technologies for very-high color rendering and high sunlight spectrum resemblance OLED lighting sources 以新穎材料與技術製備超高演色性及高太陽光譜相似性的OLED 照明光源	**Gintaras Buika**	**Edgars Suna**	**Jwo-Huei Jou** **周卓煇**	Department of Organic Technology / Kaunas University of Technology	Latvian Institute of Organic Synthesis	Department of Materials Science and Engineering, National Tsing Hua University
The Interaction of Intermediate Reynolds Number Particle Wakes in Turbulent Environment 中等雷諾數顆粒跡流在紊流環境中之交互作用	**Arūnas Sirvydas**	**Anatolijs Borodinecs**	**Jeng-Horng Chen** **陳政宏**	LITHUANIAN ENERGY INSTITUTE, Laboratory of nuclear engineering	Institute of Heat, Gas and Water, Riga Technical University	Department of Systems and Naval Mechatronic Engineering, National Cheng Kung University
High resolution nontoxic, nanodiamond encapsulated, magnetic resonance imaging contrast agent 具高解析度無毒性奈米鑽石包覆顆粒應用於磁共振影像顯影技術	**Rimantas Vaisnoras**	**Maija Dambrova**	**Jyh-Ming Ting** **丁志明**	Lithuanian University of Educational Sciences	Latvian Institute of Organic Synthesis	National Cheng Kung University
Si Nanocones and Graphene Oxide Passivation for Solar Cells 矽奈米錐及氧化石墨烯鈍化太陽電池	**Steponas Ašmontas**	**Pavels Onufrijevs**	**Chu-Hsuan Lin** **林楚軒**	Semiconductor Physics Institute, Center for Physical Sciences and Technology	Institute of Technical Physics, Riga Technical University	Department of Opto-Electronic Engineering, National Dong Hwa University
Reconfigurable logic: effective design, verification, testing and repair methods and tools 可重組化邏輯: 有效之設計、驗證、測試與修復技術與自動化軟體開發	**Rimantas Šeinauskas**	**Igors Lemberskis**	**Shyue-Kung Lu 呂學坤**	Faculty of Informatics, Kaunas University of Technology	Ventspils University College	Department of Electrical Engineering, National Taiwan University of Science and Technology

Low-temperature geothermal resources in Baltic basin and Taipei basin for heating and cooling needs 波羅地盆地和台北盆地之低溫地溫資源於供熱和供冷方面之比較	**Robert Mokrik**	**Tomas Saks**	**Hung-Jiun Liao** **廖洪鈞**	Vilnius University	Faculty of Geography and Earth Sciences, University of Latvia	National Taiwan University of Science and Technology
Innovative hybrid modelling and simulation techniques for green sustainable global supply chain management 創新混和模式與模擬技術應用於永續綠色供應鏈管理	**Edmundas Kazimieras Zavadskas**	**Jurijs Merkurjevs**	**James Liou** **劉建浩**	Department of Construction Technology and Management, Vilnius Gediminas Technical university	Department of Modelling and Simulation, Riga Technical University	Department of Industrial Engineering and Management, National Taipei University of Technology
Theoretical and Numerical Analysis of Coaxial Type Magnetic Gears- with a Potential of Applications in High Technology 同心式磁性齒輪之理論與數值分析及在高科技之潛在應用	**Minvydas Ragulskis**	**Uldis Strautins**	**Wen-Hsiang Hsieh** **謝文祥**	Research Group for Mathematical and Numerical Analysis of Dynamical Systems, Kaunas University of Technology	Faculty of physics and mathematics, University of Latvia	Department of Automation Engineering, National Formosa University
Implementation of decision making tools and techniques for environmental sustainability of transport systems 運輸系統環境永續性決策支援工具與技術之建置	**Laurencas Raslavičius**	**Antons Patlins**	**Chi-Bin Cheng** **鄭啟斌**	Department of Transport Engineering at Kaunas University of Technology	Institute of Industrial Electronics and Electrical Engineering,Riga Technical University	Department of Information Management, Tamkang University
Development of biochemical and thermal processes for utilization of lignocellulosic biomass to biofuels and chemicals 木質纖維素能源化與高值化之研究	**Algis Džiugys**	**Valdis Kampars**	**Chiu-Yue LIN 林秋裕**	Lithuanian Energy Institute	Faculty of Materials Science and Applied Chemistry, Riga Technical University	Feng Chia University
Implementation of practical performance based test methods and use of constitutive models to extend asphalt pavement life cycle and predict its performance. 由試驗方法與材料組成律進行鋪面之績效以增長瀝青鋪面之壽命與預測其績效	**Audrius Vaitkus**	**Viktors Haritonovs**	**Ming-Lou Liu** **劉明樓**	Road Research Institute, Vilnius Gediminas Technical University	Riga Technical University, Dept. of Roads and Bridges	Department of Civil& Ecology Engineering, I-ShouUniversity

Exploring Diseasomic Associations: Stochastic Models and Innovative Techniques for Clinical Decision Support under Incomplete Information 運用機率模式探索疾病體關聯(Diseasomic Associations)以提供臨床決策支援	**Arūnas Lipnickas**	**Nikolajs Nečvaļs**	**Yu-Chuan Li** **李友專**	Kaunas University of Technology	University of Latvia	College of Medical Science and Technology, Taipei Medical University
Enhancing toughness in nanostructured cements for orthopaedic and dental applications 應用奈米結構增韌之骨科/牙科用可注射式骨水泥	**Aivaras Kareiva**	**Karlis A. Gross**	**Jen-Chang Yang** **楊正昌**	General and Inorganic Chemistry, Vilnius Uni	Institute of Biomaterials and Biomechanics, Riga Technical Uni	Schl of Dental Technology, Taipei Medical University
Landfill Mining for Materials and Energy Recovering: Innovative Technologies and Environmental Impact 垃圾掩埋場挖除再生之物質與能源回收: 創新技術與環境評估	**Gintaras Denafas**	**Ruta Bendere**	**Ming-Chun Lu** **盧明俊**	Kaunas University of Technology, Faculty of Chemical Technology, Department of Environmental Engineering	Institute of Physical Energetics	Chia Nan University of Pharmacy and Science, Department of Environmental Resources Management
New polymeric compounds with selected nano-particles for the damping joints (NANODAMP) 含奈米微粒之聚合物新配方於阻尼器之應用研究	**Raimundas Rukuiza**	**Jānis Zicāns**	**Chih-Hung G. Li 李志鴻**	Institute of Power and Transport Machinery Engineering, Aleksandras Stulginskis University	Institute of Polymer Materials, Riga Technical University	Minghsin University of Science and Technology

Biological or medical sciences	Project Leader			Institute		
Project	**Lithuania**	**Latvia**	**Taiwan**	**Lithuania**	**Latvia**	**Taiwan**
Raising the Importance of the Sustainable Functional Food Consumption in a Resource-Constrained World: Experience of Baltic states and East Asia 永續性機能性食品之開發與生產進行研究	**Alvija Šalaševičienė**	**Evita Straumite**	**Tzu-Ming Pan** **潘子明**	Department of Food Technology, University of Applied Sciences	Faculty of Food technology, Department of Food Technology, Latvia University of Agriculture	Department of Biochemical Science and Technology, National Taiwan University

NEUROPROTECTIVE PROPERTIES OF TANSHONONE IIA: FOCUS ON NEUROREGENERATION AND ANTI-NEUROINFLAMMATION IN PARKINSON ' S DISEASE MODEL 探討 Tanshinone IIA 的抗發炎與神經保護作用特性在神經退化性失調帕金森氏症的神經再生與保護作用	**Augustas Pivoriūnas**	**Vija Klusa**	**Chi-Shiun Chiang** **江啟勳**	Department of Stem Cell Biology, State Research Institute Centre for Innovative Medicine	Department of Pharmacology, Faculty of Medicine, University of Latvia	Department of Biomedical Engineering and Environmental Sciences, National Tsing Hua University
Development and validation of gastric cancer associated autoantibody test for early gastric cancer detection 早期檢測胃癌相關之自體抗體的發展和驗證	**Laimas Virginijus Jonaitis**	**Zane Kalnina**	**Chun-Ying Wu** **吳俊穎**	Lithuanian University of Health Sciences (LUHS)	Latvian Biomedical Research and Study centre (LBMC)	Taichung Veterans General Hospital (TVGH)
Integration of biphasic calcium phosphate biomaterials in soft and bone tissue after implantation in experimental animals 創新型磷酸鈣生醫材料在軟硬骨組織之生物體試驗	**Ricardas Kubilius**	**Janis Locs**	**Keng-Liang Ou** **歐耿良**	Lithuanian University of Health Sciences, Department of Maxillofacial Surgery	Riga Biomaterials Innovations and Development Centre of Riga Technical University	College of Oral Medicine, Taipei Medical University
Pulsed radiofrequency (PRF), transforaminal corticosteroid injection and acupuncture clinical efficacy with effects on morphology of neuronal Tissue in cases of lumbar radiculopathie: a clinical and experimental study 脈衝式高頻熱凝療法，經神經孔硬脊膜上類固醇注射，以及針灸對於臨床腰椎神經根病變之療效與神經組織病理變化之誇國性基礎研究	**Jūratė Šipylaitė**	**Edgars Vasilevskis**	**Mao-Feng Sun** **孫茂峰**	Vilnius University Hospital Santariškių Klinikos	Riga Stradins University	China Medical University Hospital

Natural Sciences	Project Leader			Institute		
Project	**Lithuania**	**Latvia**	**Taiwan**	**Lithuania**	**Latvia**	**Taiwan**

Comparative assessment of anthropogenic impact on the Baltic Sea and the Taiwan Strait by radiometric dating and geochemical approach 利用放射性定年和地球化學手段對比評估人類活動在波羅地海和台灣海峽之影響	**1.Galina Lujanienė** **2.Darius Valiulis**	**Juris Aigars**	**Hong-Chun Li** **李紅春**	Department of Environmental Research, Institute of Physics, Center for physical sciences and technology	Latvian Institute of Aquatic Ecology	Department of Geosciences, National Taiwan University
Nonpolar ZnO thin films: growth-related structural and optical properties 非極性 ZnO 磊晶薄膜---生長結構及光學特性研究	**Ramūnas Nedzinskas**	**Laima Trinkler**	**Mitch M.C. Chou** **周明奇**	Optoelectronics department, Center for Physical Sciences and Technology	Institute of Solid State Physics, University of Latvia	Department of Materials and Optoelectronic Science, National Sun Yat-Sen University

Humanities

Project	Project Leader			Institute		
	Lithuania	**Latvia**	**Taiwan**	**Lithuania**	**Latvia**	**Taiwan**
Christianity and Eastern Religions in Contemporary Latvia, Lithuania and Taiwan: Philosophical, Anthropological and Sociological Approaches 當代拉脫維亞、立陶宛與臺灣之基督宗教與東方宗教：哲學、人類學與社會學角度	**Agnė Budriūnaitė**	**Solveiga Krūmiņa-Koņkova**	**Shiun-wey Huang** **黃宣衛**	Vytautas Magnus University Centre for Asian Studies, Vytautas Magnus University	Institute of Philosophy and Sociology, University of Latvia	College of Humanities and Social sciences, National Dong Hwa University
Digital Archives of History and Geography: Development, Instruction, Research, and Promotion 史地數位典藏之開發、教學、研究與推廣	**Vincentas Lamanauskas**	**Andrejs Geske**	**Kuo-Hung Huang** **黃國鴻**	University of Siauliai	Faculty of Education, Psychology and Art, University of Latvia	National Chiayi University

LATVIJAS REPUBLIKA
IZGLĪTĪBAS UN ZINĀTNES MINISTRIJA

NSC

THE REPUBLIC OF LITHUANIA
MINISTRY OF EDUCATION AND SCIENCE

Protocol of the 12th Meeting of the Steering Committee of Mutual Funds for Scientific Cooperation between Latvia, Lithuania and Taiwan

Date & Time: October 24, 2013; 10:30~18:40
Venue: Senate Hall, Latvian Academy of Sciences, Riga, Latvia
Participants: Delegation from NSC, IZM, SMM, and Research teams

Steering Committee members:
Latvia: Prof. Andrejs Siliņš, Armands Plate, Dr. Maija Bundule;
Lithuania: Ass.Prof.Rimantas Vaitkus, Prof.Limas Kupčinskas, Ms.Asta Aleksandravičiene;
Taiwan: Prof. Hong Hocheng, Prof. Tsung-Tai Lin, Mr. Gary K.Y.Ko.
Other participants:
Dr.Suang-Jing Pong, Ms. Hui-Chen Lin (NSC office in Germany), Mr. Shen-Da Fuh(NSC), Ms.Rūta Jacinavičiene (SMM), Ms.Karina Aleksandra (IZM).

1. The meeting began with Professor Andrejs Siliņš welcome words, Prof. Hong Hocheng and Ass.Prof.Rimantas Vaitkus also gave their opening remarks as co-chairpersons. After the opening remarks made by chairpersons, presentations on the ongoing projects were made by the Principal Investigators of the projects. Steering Committee commented on the results of joint research projects and exchanges of opinions were made.

2. It was concluded that the following fore projects were completed successfully.
   2.1. *"One-dimensional Nanostructures of Ternary AlGaN and metal doped- Zinc Oxide with Tunable Bandgaps: Growth, Characterization and Optical Properties"*
   2.2. *"Combination of cell electroporation and sonoporation for the efficient drug delivery into cells and tissues for tumor treatment"*
   2.3. *"Nano scaled functional materials for biotechnological and optical applications"*
   2.4. *"Proteasomal gene alleles as risk factors for bronchial asthma in Latvian, Lithuanian and Taiwanese populations"*

3. Taking into account the reports on the ongoing projects the Committee decided to continue financing of the following projects from January 1, 2014 to December 30, 2014:
   3.1. *"Materials and Processing Development for Advanced Li Ion Batteries"*
   3.2. *"Coherent Manipulation of Matter by Light and Light by Matter"*
   3.3. *"Establishing of the framework to track molecular epidemiology of Parvoviruses and to correlate sequence variability with different clinical manifestations"*
   3.4 *"Synthesis and studies of organic electroactive materials for effective and reliable optoelectronic devices."*
   3.5. *"Excitation and charge transfer in organic-inorganic hybrid nanostructures for light harvesting."*

4. After the exchanges of ideas, the Committee reached the consensus thatfour new projects are approved:
   4.1. "*Mesenchymal stem cell and cancer stem-like cell response to nanoparticle treatment*"
   4.2. *"New materials and technologies for very-high color rendering and high sunlight spectrum resemblance OLED lighting sources"*
   4.3. *"Developing and validation of gastric cancer associated autoantibody test for early gastric cancer detection"*
   4.4. *"Nonpolar ZnO thin films: growth-related structural and optical properties"*

5. Parties decided to cooperate and organize a scientific workshop that could help to broaden the circle of researchers from Latvia, Lithuania and Taiwan submitting projects to the Mutual Funds especially in social sciences and humanities. Scientific workshop could take place in Riga at the beginning of 2014.

6. Parties decided to exchange with the information about the criteria and evaluation procedure applied to the project proposals submitted to the Call of the Mutual Funds on national level in order to harmonize these evaluation procedures.

7. Lithuanian Party informed about the 11th International Conference (CYSENI) on energy issues, which is organised by the Lithuanian Energy Institute and will be held on 29–30 May 2014 in Kaunas and invited young Latvian and Taiwanese researchers to participate in it.

8. The deadline for project proposal submission in 2014 will be May 31.

9. The next meeting place is foreseen in Vilnius, to be held in early November 2014.

Signature of the Steering Committee Members:

Ass. Prof. Rimantas Vaitkus	Prof. Andrejs Siliņš	Prof. Hong Hocheng
Prof.Limas Kupčinskas	Armands Plāte	Mr. Gary K.Y.Ko
Ms. Asta Aleksandravičiene	Dr. Maija Bundule	Prof. Tsung-Tai(Willis) Lin

附錄三

台拉立科技合作年會議程、出席名單及參訪行程表

12th MEETING OF THE STEERING COMMITTEE OF THE MUTUAL FUNDS FOR SCIENTIFIC COOPERATION BETWEEN LATVIA, LITHUANIA AND TAIWAN

Place: Senate Hall, Latvian Academy of Sciences, Akadēmijas laukums 1, Rīga
Time: 24th October, 2013, 10.30 – 18.00

Chairs: Chair Andrejs Siliņš, LCS
Deputy Minister Hong Hocheng, NSC
Vice Minister Rimantas Vaitkus, SMM

DRAFT AGENDA

Time	Event	Persons
10.30-10.35	Welcome Address, Introduction of Latvian delegation	Chair Andrejs Siliņš
10.35-10.40	Remarks, Introduction of National Science Council Delegation	Chair Hong Hocheng
10.40-10.45	Remarks, Introduction of Lithuanian Delegation	Chair Rimantas Vaitkus
10.45-10.50	Remarks, Head of the Taipei Mission to the Republic of Latvia	Mr. Gary K. Y. Ko
10.50-13.50	Presentations on the results of joint research projects (~15 min each presentation) presented by Latvian project partners and followed by questions:	
	Presentation I – Final Report Project „ *Combination of electroporation and sonoporation for efficient drug delivery into cells and tissues for tumor treatment"*	Dr. Jānis Spīgulis
	Presentation II – Final Report Project *„One-dimensional Nanostructures of Ternary AlGaN and metal doped-Zinc Oxide with Tunable Bandgaps: Growth, Characterization and Optical Properties"*	Dr. Baiba Bērziņa
	Presentation III – Final Report Project *„Nanoscaled functional materials for biotechnological and optical applications"*	Dr. Kārlis A.Gross
	Presentation IV – Final Report Project *"Proteasomal gene alleles as risk factors for bronchial asthma in Latvian, Lithuanian and Taiwanese populations"*	Dr. Natalija Paramonova
12.00-12.20	Coffee break	
12.20-13.50	Presentation V – Report of 2nd year Project *"Coherent manipulation of matter by light and light by*	

	matter"	Dr. Arturs Ciniņš
	Presentation VI – Report of 2nd year Project "*Materials and processing development for advanced Li ion batteries"*	Dr. Gunārs Bajārs
	Presentation VII – Report of 2nd year Project "*Establishing of the framework to track molecular epidemiology of Parvoviruses and to correlate sequence variability with different clinical manifestations"*	Dr. Modra Murovska
	Presentation VIII – Report of 1st year Project *"Synthesis and studies of organic electroactive materials for effective and reliable optoelectronic devices"*	Dr. Mārtiņš Rutkis
	Presentation IX – Report of 1st year Project *"Excitation and charge transfer in organic-inorganic hybrid nanostructures for light harvesting"*	Prof. Arturs Medvids
14.00-15.30	Lunch hosted by Venue – Latvian Academy of Sciences	Chairs, Committee Members, Project Leaders
15.30-15.40	Briefing on the new progress of NSC	Chair Hong Hocheng
15.40-15.50	Briefing on the new progress of SMM	Chair Rimantas Vaitkus
15.50-16.00	Briefing on the new progress of IZM	Mr. Armands Plate
16.00-16.45	Issues about projects and project proposals: 1. General discussion and re-approval of on-going research projects 2. Information about new project applications submitted to Call 2013 3. Joint review on research project proposals – results of NSC/SMM/LZA peer review 4. Discussion and final selection of new joint research projects for 2014	Committee Members
16.45-17.30	Issues for discussion 1. Reviewing the protocol of 11th Steering Committee meeting in 2012 2. Future advancement of the Mutual Funds	Committee Members
17.30-17.35	Conclusions	Chair Andrejs Siliņš
17.35-18.00	Signing of the Minutes of the 12th Steering Committee meeting and group photo	Committee Members

12th STEERING COMMITTEE MEETING

24th October 2013
Latvian Academy of Sciences
Senate Hall
Riga

Participants

Delegation of the National Science Council, Taiwan

Prof. Hong HOCHENG, Deputy Minister,
Prof. Tsung-Tai (Willis) LIN, Director General, Department of International Cooperation,
Mr. Shen-da FUH, Senior Researcher and Program Director, Department of International Cooperation,
Dr. Suang-Jing PONG, Director, National Science Council's Office in Bonn,
Ms. Hui-Chen LIN, Secretary, National Science Council's Office in Bonn.

Delegation of the Ministry of Education and Science of the Republic of Lithuania

Dr. ass.prof. Rimantas Vaitkus, Vice Minister of Education and Science,
Prof. Limas Kupčinskas, Head of Gastroenterology Department, Clinics of the LSMU Hospital, President of Lithuanian Gastroenterological Association, delegated by the Research Council of Lithuania,
Ms.**Asta Aleksandravičienė** - Chief Officer of the International Affairs Unit, Research Foundation of the Research Council of Lithuania,
Rūta Jacinavičienė, Chief Specialist of the Division of International Cooperation, Ministry of Education and Science of the Republic of Lithuania.

Delegation of the Ministry of Education and Science of the Republic of Latvia

Prof. Andrejs Siliņš, Chair of the Latvian Council of Science,
Mr. Armands Plāte, Deputy Director, Department of Higher Education, Research and Innovation, Ministry of Education and Science,
Dr. Maija Bundule, Head of the Centre of European Programms, Latvian Academy of Sciences

Leading researchers of the joint projects in Latvia

Dr. Mārtiņš Rutkis, Deputy Director for Research, Institute of Solid State Physics, University of Latvia,
Prof., Dr. Arturs Medvids, Riga Technical University,
Dr. Baiba Bērziņa, Leading Researcher, Institute of Solid State Physics at the University of Latvia,
Dr. Gunārs Bajārs, Leading Researcher, Institute of Solid State Physics at the University of Latvia,
Prof., Dr. Jānis Spīgulis, Leading Researcher, Institute of Atomic Physics and Spectroscopy at the University of Latvia,
Dr. Kārlis Gross, Riga Technical University,
Dr. Tatjana Sjakste, Head of the Laboratory of Genomics and Bioinformatics, Institute of Biology at the University of Latvia,
Dr. Modra Murovska, Institute of Microbiology and Virology at the Riga Stradiņš University,
Mg. Arturs Ciniņš, University of Latvia

Participants from Taipei Mission in the Republic of Latvia

Mr. Gary K. Y. KO, Representative & Head of the Taipei Mission in Riga
Mr. Ya-Ming Suen, First Secretary, Taipei Mission in Riga

12th Taiwan-Baltic Steering Committee Meeting

Visit Program

Riga

23th - 26th October 2013

Wednesday, 23 October 2013

~17.30	arrival of the Taiwanese Delegation at Riga Airport (flight no.BT462)
~18.30	check-in at Radisson BLU Elizabete Hotel *Elizabetes street 73* *Tel.* +371 6778 5555 *e-mail address: info.elizabete.riga@radissonblu.com*
?	Arrival of the Lithuanian Delegation (*by car*) at Radisson BLU Elizabete Hotel

Thursday, 24 October 2013

9.00	*meeting in the hotel lobby*
9.20 - 10.00	Visit to the Ministry of Education and Science Valņu Street 2, Riga
10.00	*Leaving Ministry of Education and Science for the Latvian Academy of Sciences*
10.30 – 18.00	Steering Committee Meeting Venue: Latvian Academy of Sciences Akadēmijas square 1 Tel. +371 667225361 e-mail address: lza@lza.lv
19.00	Official Dinner hosted by the Ministry of Education and Science at the restaurant "Kaļķu vārti" (*Lime Gate*) *Reimersa street 1* Tel: +371 6709 3333 E-mail: info.ridzeen.riga@radissonblu.com
~22.00	Departure of the Lithuanian delegation to Vilnius

Friday, 25 October 2013

9.30 -	*meeting in the the hotel lobby*
9.50 – 11.30	visit to the Latvian Institute of Organic Synthesis,

	Aizkraukles Street 21
12.00 – 13.30	visit to the Institute of Solid State Physics, University of Latvia *Ķengaraga street 8*
13.30 - 14.30	Lunch at the *Lido Krievu sēta* (Lido Russian Yard) *Ķengaraga street 3*
14.30 16.35	Hotel check-out and departure of Prof.Tsung-Tai Lin to Riga Airport Departure to Vienna (flight no.BT433)
16.00 – 17.00	Guided sightseeing tour of Riga
18.30	*Meeting in the hotel lobby*
19.00	Opera performance "Carmen" Latvian National Opera *Aspazijas boulevard 3*

Saturday, 26 October 2013

~ 7.00 ~14.40	Hotel check-out and departure of Taiwanese delegation to Riga Airport (flights no. BT617 and BT245)

Contact information:

Dr. Maija Bundule
Head of the Centre of European Programs
Latvian Academy of Sciences
Phone: +371 67227790, cell phone: +371 26514481

Ms.Ineta Plikša
Project Manager
Centre of European Programs
Latvian Academy of Sciences
Phone: +371 67227790