

## Introduction of the Associate Professors

## 准教授・講師紹介

## Riichiro Abe, Senior Associate Professor

准教授 阿部 理一郎



The start of my research was when Dr. Akira Ohkawara, then professor of the department, invited me to do some research. Dr. Tadamichi Shimizu (currently professor at University of Toyama) gave me guidance in studying proteins that support the cell membrane. I remember not really knowing what I was aiming at, and I made a huge chunk of gel and repeatedly purified samples made from my own blood. (I don't remember how much blood must've been drawn.)

My research changed to migration inhibitory factors (MIFs) of inflammatory cytokines, and I observed contact hypersensitivity reactions and wound healing. Dr. Jun Nishihira, who led MIF research at the Hokkaido University Medical Department, (currently professor at Hokkaido Information University) provided me an opportunity to study abroad. I continued my research on MIFs, particularly the role of MIFs in tumor immunity, at a small research institution in New York.

After I returned to Hokkaido University, newly appointed Professor Hiroshi Shimizu advised me to pick a specialization. I chose severe drug eruptions. Being only a resident, I was hoping to see as few of such patients as possible. I never imagined that this chosen theme would become the main focus of my research so much later. In my research, I've been blessed with assistance from motivated graduate course students.

What I've always thought about research is that I'd like to follow my heart as much as possible. I know it's not easy or accepted to do such a selfish thing. But I also think it's important to work to change the research environment to one in which you can do your research as your heart dictates. It may sound trite, but I'd like to do something that's useful in clinical practice. The happiest thing for a doctor is to find a way to cure the patient in front of you as well as patients around the world. A few years ago, I started to see outpatients at a special clinic for drug eruptions. As I gradually come to see more patients with severe disorders, I strongly wish to do work that's diagnostically and therapeutically valuable.

I'm also in charge of educating students and residents in the department. The new First-term Clinical Training System has greatly affected the department; however, I keenly feel the importance of education to foster good doctors in such a difficult situation.

当時教授の大河原章先生から、研究でもしたらどうか、と言われ、清水忠道先生（現富山大学教授）に細胞膜の裏打ちタンパクの研究を指導してもらったのが研究の始まりでした。今振り返ってみると何が何だかわからないままに、一抱えもあるほどの大きなゲルを作って、自分の血液（何百ccでしたか）から精製を繰り返していました。

その後、炎症性サイトカインのMIFのテーマに移り、接触過敏反応や創傷治癒をみました。その当時北大医学部でのMIF研究を統括されていた生化学の西平 順先生（現北海道情報大学教授）に留学のお声を掛けて頂き、ニューヨークのこじんまりとした研究所で引き続きMIFの腫瘍免疫への関与について研究しました。

帰国後は、新たに赴任された清水 宏教授に、自分の臨床の専門分野を持つようにと指導されました。それで、研修医の頃にこんな患者さんは来ないでほしいな、と思っていた重症薬疹をテーマに選んだのですが、それが私のメインの研究になるとは想像していませんでした。その後はやる気のある多くの大学院生のお蔭でなんとか続けていられています。

研究に関して常々思っていることは、自分の探究心に従って、興味の赴くままにやりたい、ということです。こんなわがままがそうそう許されるはずもないのですが、そのわがままが許されるように身の回りの環境を変えることも大事だと思います。それとありきたりの言葉ですが、臨床に役立つことをしたいと思っています。目の前の患者を治すことに加えて、世界中の患者さんに役立つことを作り出せば、これほど医者冥利に尽きることはありません。数年前から薬疹の専門外来も始めました。最近重症薬疹の症例が増えてきており、診断・治療に役立つ仕事をと切に思っています。

また当教室での学生から研修医までの教育担当をしています。この数年の初期臨床制度の影響は甚大でしたが、このような状況であるからこそ、良き医者になるように若者を導くことの重みを感じています。

## Biography／略歴

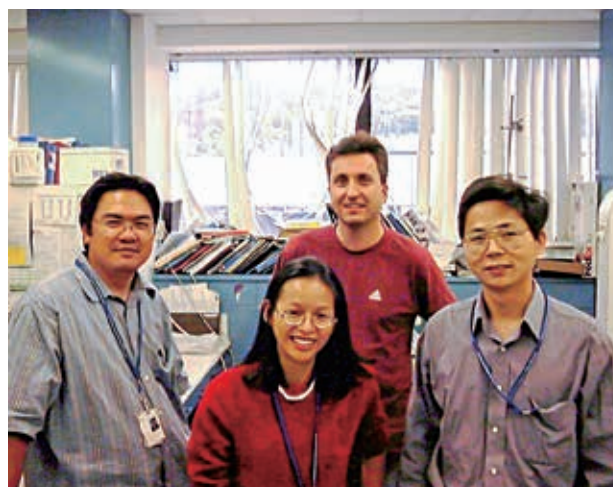
1994, Mar.	Graduates from the Hokkaido University School of Medicine.	1994.3	北海道大学医学部 卒業
1994, Apr.	Joins the Hokkaido University Dept. of Dermatology.	1994.4	北海道大学医学部皮膚科 入局
1998, Oct.	Starts research at the Picower Institute for Medical Research, U.S.A.	1998.10	米国 Picower 医学研究所 留学
2000, Oct.	Starts serving as a staff doctor in the Dept. of Dermatology, Hokkaido University Hospital.	2000.10	北海道大学病院皮膚科 医員
2002, Apr.	Becomes assistant Professor in the Dept. of Dermatology, Hokkaido University Hospital.	2002.4	北海道大学病院皮膚科 助手
2007, Mar.	Starts serving as associate professor in the Dept. of Dermatology, Hokkaido University Hospital.	2007.3	北海道大学病院皮膚科 講師
2010, Oct.	Becomes senior associate professor in the Department of Dermatology, Hokkaido University Graduate School of Medicine.	2010.10	北海道大学医学研究科皮膚科 准教授

## Selected papers／主要論文

1. Saito N, Yoshioka N, **Abe R**, Qiao H, Fujita Y, Hoshina D, Suto A, Kase S, Kitaichi N, Ozaki M, Shimizu H. Stevens-Johnson syndrome/toxic epidermal necrolysis mouse model generated by using PBMCs and the skin of patients. *J Allergy Clin Immunol* (131: 434–441, 2013) (co-corresponding author)
2. Fujita Y, **Abe R**, Inokuma D, Sasaki M, Hoshina D, Natsuga K, Nishie W, McMillan JR, Nakamura H, Shimizu T, Akiyama M, Sawamura D, Shimizu H: Bone marrow transplantation restores epidermal basement membrane protein expression and rescues epidermolysis bullosa model mice. *Proc Natl Acad Sci U S A* 107: 14345-14350, 2010. (co-corresponding author)
3. **Abe R**, Yoshioka N, Murata J, Fujita Y, Shimizu H: Granulysin as a marker for early diagnosis of the Stevens-Johnson syndrome. *Ann Intern Med* 151: 514-515, 2009. (corresponding author)



I'm with Prof. Ohkawara at the Departmental Baseball Tournament  
医局野球の試合で大河原先生と



I'm with the members of my lab at the Picower Institute in the U.S.  
留学時の研究室のメンバーと

# Introduction of the Associate Professors

## 准教授・講師紹介

Satoru Aoyagi, Associate Professor

講師 青柳 哲



When I worked as the chief and the only doctor of the dermatology department of a local hospital three years after joining Hokkaido University, I saw many cases of injuries, burns and skin tumors. These made me keenly aware of how indispensable skin surgical techniques are. The following year, I got permission from Dr. Akira Ohkawara, then Professor of the Department of Dermatology of Hokkaido University, to become a resident in the Plastic Surgery Dept. of Sapporo City Hospital, where I learned under Dr. Tetsunori Yoshida. Later, I had an opportunity to experience the diagnosis and treatment of tumors at the Hokkaido Cancer Center under the instruction of Dr. Naoko Kato. All these experiences led me to my specialties, which include skin surgery and skin tumors.

When I was working on surgery and cancer treatments every day at the Hokkaido Cancer Center, Professor Hiroshi Shimizu assumed the dermatology professorship at Hokkaido University. I returned there as a member of the skin surgery team in 2001. For three years after my return to Hokkaido University, I devoted myself to treating skin cancer patients. My goal at that time was to perform surgeries and treatments that satisfied the professor's expectations. Professor Shimizu basically entrusted surgery to me, which enabled me to improve my surgical skills.

My turning point as a skin surgeon began when I had visited the U.K. early in 2004; it was my first encounter with Mohs surgery. I visited Dr. Barlow, a Mohs surgeon, in London and was given an opportunity to observe the clinic. This experience led me to my later studies at Miami Univ. in the U.S. At Miami University I gained experience with several hundred cases of Mohs and reconstruction surgeries under the instruction of Dr. Nouri, a Mohs surgeon. The experiences at Miami University were precious and would have been impossible to have in Japan. That I participated in the ward round and conferences every week was very useful in improving my clinical ability to deal with a wide range of skin disorders.

Since returning to Japan, I've been working on the daily task of treating skin cancer. In addition to my everyday tasks, I've been instructing young Dermatologic surgeons and doing clinical research on a double-blade technique that incorporates the techniques of Mohs micrographic surgery and a more advanced intraoperative fluorescent spectra technique.

When I think back, I'd first thought of gaining the minimum required skin surgical techniques. But before I knew it, my experiences naturally drew me farther into the field. It may have been the atmosphere of the Hokkaido University Department of Dermatology that has made me think and act in such a way. Not content with the current situation, I'd like to contribute to the education of skin surgeons who have a global view and are highly self-motivated.

卒後3年目に地方病院で一人医長を経験した際、外傷や熱傷、皮膚腫瘍などが数多く、皮膚外科の技術が必須であると痛感しました。当時の大河原章教授のお許しを頂き、翌年に市立札幌病院形成外科（吉田哲憲先生）で研修させて頂き、その後、北海道がんセンター（加藤直子先生）で腫瘍の診断と治療の経験を積ませて頂いたのが、現在の専門である皮膚外科・皮膚腫瘍への道に進むきっかけとなりました。

ちょうど北海道がんセンターで手術やがん治療に明け暮れていた頃、清水宏教授が就任され、2001年に大学に皮膚外科班として戻りました。その後の3年間は、教授の納得出来るような治療内容や手術結果を目標に、ただひたすら目の前の皮膚癌患者の治療に没頭した日々を送っていました。ただ、手術は基本的にすべてを一任させて頂き貰えたので、その責任を背負う反面、手技のレベルアップと術式の幅を広げることが出来ました。

皮膚外科医としての転機となったのは、Mohs surgeryとの最初の関わりとなった2004年始めのイギリスへの短期出張です。LondonのMohs外科医Dr. Barlowを訪ねて、そこでの見学が、その後のアメリカMiami大学への留学へと繋がっていきました。Miami大学では、Mohs外科医Dr. Nouriのもとで、数百例のMohs surgeryとその再建術に入らせて貰い、日本では得られない貴重な経験をしました。また、回診とカンファレンスに毎週参加したことは、その後の皮膚疾患全般に対しての臨床能力の向上に非常に役立ちました。

帰国後は、日々の皮膚癌治療のみならず、若手皮膚外科医への指導と、海外での経験を活かしてMohs micrographic surgeryの手法を取り入れたdouble-blade法や、それを更に発展させた術中蛍光スペクトル法の臨床研究を積極的に行っています。

振り返ってみると、一人の皮膚科専門医として、最低限の皮膚外科技術を得ようと思ったのが始まりですが、いつの間にか更にその先へ先へと自然と目が向いていきました。北大皮膚科教室全体に流れる雰囲気やそうさせたのかもかもしれません。これからも、現状だけで満足せずに、世界にも目を向けて高いモチベーションで自身を高めていく皮膚外科医達が育っていくのに少しでも貢献出来ればと思っています。



## Biography／略歴

1995, Mar. Graduates from the Medical Department, Dokkyo Medical University.	1995.3 獨協医科大学医学部卒業
1995, Apr. Joins the Department of Dermatology, Department of Medicine, Hokkaido University.	1995.4 北海道大学医学部皮膚科入局
1998, Apr. Becomes a second-term resident at the Plastic Surgery Department, Sapporo City Hospital.	1998.4 市立札幌病院形成外科・後期レジデント
1999, Apr. Becomes a medical staff member in the Dermatology Department of National Sapporo Hospital (currently the Hokkaido Cancer Center).	1999.4 国立札幌病院（現北海道がんセンター）皮膚科医員
2001, Apr. Becomes a medical staff member in the Dermatology Dept. of Hokkaido University Hospital.	2001.4 北海道大学医学部附属病院皮膚科 医員
2004, Mar. Becomes an Assistant Professor in the Dermatology Dept. of Hokkaido University Hospital.	2004.3 北海道大学医学部附属病院皮膚科 助手
2004, Apr. Studies in the Cutaneous Surgery Dept. of Miami University, U.S. (1 year).	2004.4 米国 Miami 大学皮膚科皮膚外科留学（1年間）
2007, Apr. Becomes an Assistant Professor at the Dermatology Dept. of Hokkaido University Hospital.	2007.4 北海道大学医学部附属病院皮膚科 助教
2010, Jul. Becomes Associate Professor in the Dermatology Dept. of Hokkaido University Hospital.	2010.7 北海道大学医学部附属病院皮膚科 講師

## Selected papers／主要論文

1. **Aoyagi S**, Hata H, Homma E, Shimizu H  
Sequential local injection of low-dose interferon-beta for maintenance therapy in stage II and III melanoma: a single-institution matched case-control study.  
**Oncology 82: 139-146, 2012 (corresponding author)**
2. **Aoyagi S**, Hata H, Homma E, Shimizu H  
Controlling the histological margin for non-melanoma skin cancer conveniently using a double-bladed scalpel.  
**J Surg Oncol 101:175-179, 2010 (corresponding author)**
3. **Aoyagi S**, Akiyama M, Shimizu H  
High expression of Ki-67 and cyclin D1 in invasive extramammary Paget's disease.  
**J Dermatol Sci 50: 177-184, 2008 (corresponding author)**



2004: In the U.K. with Dr. Barlow, a Mohs surgeon.  
2004年、イギリスにて:Mohs外科医Dr. Barlowと共に



2005: With a Mohs technician on my last day in the U.S.  
2005年、アメリカにて:帰国前の最後の日にMohs技師と一緒に



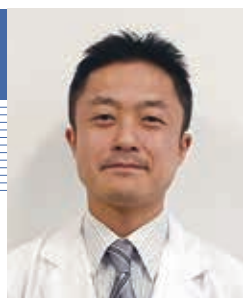
2007: At the annual meeting of the Eastern Japan Division of the JDA. I'm with Dr. Nouri from Miami Univ., Dr. Kiyohara from the Shizuoka Cancer Center, and members of the Hokkaido Univ. skin surgery team.  
2007年、札幌での東部支部学会:Miami大学のDr. Nouri、静岡がんセンターの清原先生と北大皮膚外科班

# Introduction of the Associate Professors

## 准教授・講師紹介

Wataru Nishie, Associate Professor

講師 西江 渉



After graduating from university, I became a dermatologist at a private hospital. I encountered many different types of skin disorders as a dermatologist, and this made me interested in research. After being certified as a dermatology specialist, I asked Professor Hiroshi Shimizu if it would be possible for me to do research at Hokkaido University, and I was readily accepted. As a graduate course student, I started my research on bullous pemphigoid under the guidance of Dr. Daisuke Sawamura (currently professor of the Hirosaki University Department of Dermatology). Dr. Sawamura had taught at Hirosaki University, and he was very good to the students when I was a student there. I never expected to meet him again in that way. Thanks to his guidance, I was able to complete the Ph.D. course (Reference 1). Dr. Sawamura gave me useful advice. It was thanks to him that I was finally able to complete my own experiments (Reference 2). Because of this experience, I feel happy when graduate course students come to see me and ask if it's possible to study something they've thought up by themselves, even if it seems trifling.

Later, I was given an opportunity to study in Freiburg, Germany, for two years. During my stay there, I was able to enjoy the thrill of research, which might just have been a small physiological finding (Reference 3). I hope that the graduate course students will have the same feeling as I had in Germany.

My current research themes are protein processing in the skin basement membrane and bullous dermatoses. There are countless researchers in this basic field around the world, and my time for research is limited, because my research needs to be balanced with my clinical practice. My situation might look disadvantageous. But that would be a superficial impression. I have many patients in front of me every day. Seeing patients often provides me with research hints and ideas, which I think is a great advantage for a researcher. I'll endeavor to develop my research in order to show gratitude to my patients.

Researching is an endless source of interest, and the clinical practice of dermatology is more profound than that of any other department. There's an appeal to inspiring the next generation with the attractiveness of the dermatology department, including students who come to the department for training, residents and graduate course students.

大学卒業後は民間病院の一皮膚科医として過ごしていましたが、多くの皮膚疾患に遭遇する過程で研究に興味を持つようになりました。専門医を取得後、北大で研究したい希望を清水 宏教授にお伝えしたところ快く受け入れて下さり、澤村大輔先生（現弘前大学皮膚科教授）指導のもと、大学院生として水疱性類天疱瘡の研究を開始しました。澤村先生は、私が弘前大学の学生時代に大変お世話になった先生で、この様な形で再会できるとは思っていませんでした。澤村先生のご指導のお蔭で、無事、博士課程を修了することができました（文献1）。当時は院生でしたが、澤村先生は、私が考えた研究にも快くアドバイスして下さい結果をまとめることができました（文献2）。その時の喜びは一入で、そのせいもあってか、大学院生が些細なことでも自主的に研究したいと相談してくると大変嬉しいです。

その後、ドイツのフライブルグへ2年間留学する機会を頂きました。留学中、本当に小さな生理現象かもしれませんが、新しい発見という研究の醍醐味を味わうことが出来ました（文献3）。大学院生にも、同じような感動を是非、味わってもらいたいと思っています。

現在は、皮膚の基底膜タンパクのプロセッシングと水疱症について研究を進めています。同分野には基礎の研究者が世界中に数えきれない程いますし、臨床の傍らでの研究は、時間も限られ、一見、不利に思えます。しかし私達の目の前には患者さんがいます。皮膚の疾患から、ヒントやアイディアが生まれることは少なくなく、大きなアドバンテージだと思います。今後は、患者さんたちへ恩返し出来るような研究を発展していきたいです。

研究に興味があることはありませんが、皮膚科臨床の奥深さは、どの科にも負けません。皮膚科へ研修に来る学生さんや、研修医、大学院生など多くの方々へ、皮膚科の魅力を発信していくことにも遣り甲斐を感じています。

## Biography／略歴

1995, Mar.  
Graduates from Hirosaki University School of Medicine.

1995, Apr.  
Becomes a resident at the Department of Internal Medicine, Kin-ikyo Central Hospital, Hokkaido.

1995, Apr.  
Starts working as a dermatologist at Kin-ikyo Central Hospital, Hokkaido.

2002, Jun.  
Starts working as a staff doctor at the Dept. of Dermatology, Hokkaido University Hospital.

2003, Apr.  
Starts working as a dermatologist at the Social Insurance Sapporo General Hospital.

2004, Mar.  
Starts researching as Ph.D. course student in the Hokkaido University Dept. of Dermatology.

2007, Apr.  
Becomes instructor of dermatology, Hokkaido University Graduate School of Medicine.

2008, Jul.  
Becomes post-doctorate research fellow in the Dept. of Dermatology, University of Freiburg.

2010, Jun.  
Starts serving as assistant professor in the Dept. of Dermatology, Hokkaido University Hospital.

2010, Oct.  
Starts serving as associate professor in the Dept. of Dermatology, Hokkaido University Hospital.

1995.3  
弘前大学医学部 卒業

1995.4  
北海道勤労者医療協会中央病院 内科研修医

1998.4  
北海道勤労者医療協会中央病院 皮膚科

2002.6  
北海道大学病院皮膚科 医員

2003.4  
札幌社会保険総合病院 医員

2004.3  
北海道大学皮膚科大学院生として研究に従事

2007.4  
北海道大学医学研究科皮膚科学分野 助教

2008.7  
フライブルグ大学皮膚科 博士研究員

2010.7  
北海道大学病院皮膚科 助教

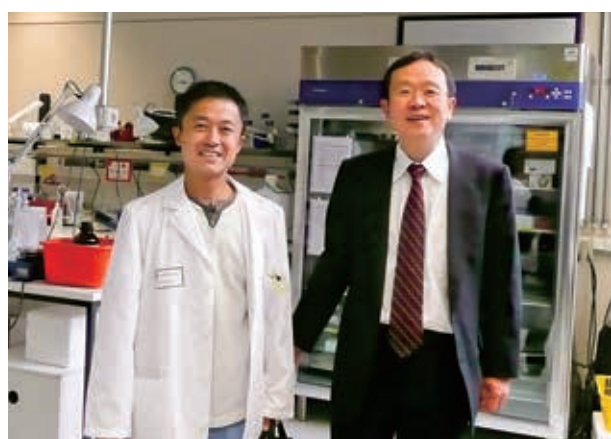
2010.10  
北海道大学病院皮膚科 講師

## Selected papers／主要論文

1. [Nishie W](#), Sawamura D, Goto M, Ito K, Shibaki A, Mcmillan J R, Sakai K, Nakamura H, Olasz E, Yancey K B, Akiyama M, Shimizu H:  
Humanization of autoantigen.  
*Nat Med* 13: 378-383, 2007.
2. [Nishie W](#), Sawamura D, Natsuga K, Shinkuma S, Goto M, Shibaki A, Ujiie H, Olasz E, Yancey K B, Shimizu H:  
A novel humanized neonatal autoimmune blistering skin disease model induced by maternally transferred antibodies.  
*J Immunol* 183: 4088-4093, 2009.
3. [Nishie W](#), Lamer S, Schlosser A, Licarete E, Franzke C W, Hofmann S C, Jackow J, Sitaru C, Bruckner-Tuderman L:  
Ectodomain shedding generates Neopeptides on collagen XVII, the major autoantigen for bullous pemphigoid.  
*J Immunol* 185: 4938-4947, 2010.



At commencement  
(March 2007)  
学位授与式(2007年3月)



With Professor Shimizu on his visit to Freiburg (2009)  
フライブルグを訪問された清水教授と(2009年)





## DebRA Japan 5th Anniversary EB Asia Meeting 2012 is held

### 表皮水疱症アジア交流大会が開催されました



Yasuyuki Fujita, Assistant Professor

文責: 助 教 藤田 靖幸

The DebRA Japan 5th Anniversary EB Asia Meeting 2012

was held at the Hokkaido University Conference Hall on July 21 and 22, 2012. It was an event that also served as the 5th anniversary of DebRA Japan, which was established in Sapporo in 2007. It was a precious opportunity for a gathering of patients from Asia (including Japan) and Oceania, and of care-givers and healthcare professionals. The attendees were from many countries, and simultaneous interpretation was in Japanese, Chinese and English.

The first day started with speeches by Ms. Keiko Miyamoto, president of the meeting and president of DebRA Japan, and Professor Hiroshi Shimizu, vice president of the meeting. Patients from Japan, Taiwan and New Zealand expressed their opinions as patients. We were impressed by their positive attitude of striving in life despite the intractable disease of epidermolysis bullosa. A TV crew from Taiwan covered the meeting, and the Hokkaido Shimbun newspaper wrote a story. After lunch and a special lecture on mesenchymal stem cell transplantation by Prof. Katsuto Tamai from Osaka University, healthcare professionals delivered reports. Professors Daisuke Sawamura, Masashi Akiyama, Katsuto Tamai and Akira Ishiko, and Drs. Shigeto Matsushita and Satoru Shinkuma delivered lectures and reported on the status of treatments for epidermolysis bullosa. All the lectures provided precious information and made the meeting a place for information exchange for all the attendees, including doctors and patients. The second day started with lectures by nurses, followed by reports on support activities by the DebRA chapters of participating countries.

It was a very good opportunity to learn the difference between Japan and other countries in terms of standard care and support systems. I truly believe that the successful meeting was helpful in uniting patients and healthcare professionals from all over Japan and that it contributed to strengthening efforts to tackle epidermolysis bullosa.

去る2012年7月21,22日に、北海道大学学術交流会館において表皮水疱症アジア交流大会が開催されました。2007年に札幌で設立された表皮水疱症友の会 (DebRA Japan) の5周年記念も兼ねて、日本を含むアジア/オセアニア地域の患者さん、介護関係者、医療関係者が一堂に会する貴重な機会でした。各国の患者さんが集まるため、大会は日本語・中国語・英語の同時通訳で進められました。

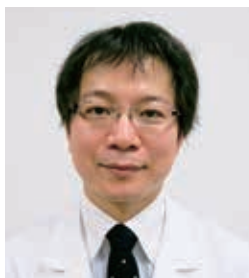
第1日目は、大会長の宮本恵子様 (DebRA Japan 会長)、副大会長の清水宏教授の挨拶から始まり、日本・台湾・ニュージーランドの患者さんが自ら声を上げて意見を述べられました。表皮水疱症という難病を抱えながらも、前向きに人生を捉えて最善を尽くす姿に、我々も心を打たれました。その様子は台湾でテレビ収録もされ、また北海道新聞にも取り上げられました。昼食と大阪大学の玉井克人教授による間葉系幹細胞移植についての特別講演を挟んで、午後は医療者側からの報告がなされました。日本の各地からの表皮水疱症診療の現状を、弘前大学の澤村大輔教授、名古屋大学の秋山真志教授、大阪大学の玉井克人教授、東邦大学の石河晃教授、鹿児島大学の松下茂人先生、北海道大学の新熊悟先生が講演され、医師のみならず患者さんも含めた全ての方にとって貴重な情報交換の場となりました。2日目は看護サイドからの講演と、各国のDebRAによる支援活動が報告され、国際的な標準ケア・支援制度と日本との違いを知る良い機会となりました。

成功裏に終わった本大会を通じて、全国の患者さん・医療関係者が認識を一つにし、表皮水疱症への取り組みがより一段深化したものと信じてやみません。





## T 2 トピックス



### Four department members win Japan Society for the Promotion of Science (JSPS) Postdoctoral Fellowships for Research Abroad

#### 日本学術振興会の海外特別研究員助成：4人連続獲得

**Ken Natsuga, Assistant Professor**

文責：助 教 夏 賀 健

In research overseas, the most crucial factor is securing sufficient income to support research activities. The value of the Japanese yen fluctuates with changes in exchange rates; however, if one's income is stable, it's possible to live reasonably in a foreign country. Some departments have ample budgets for postdoctoral researchers. But even researchers in such departments can improve their circumstances by obtaining grants of their own, and that also provides an important opportunity for them to demonstrate that they're recognized as able researchers. At the Department of Dermatology of Hokkaido University, all four members (Drs. Yanagi, Ujiie, Shinkuma and Natsuga) who have studied abroad since 2010 received grants from the Japan Society for the Promotion of Science (JSPS). JSPS grants are very valuable, because they're well known by principal investigators in foreign countries. Obtaining this funding was realized not only by the researchers who received the grant, but also by the efforts of Professor Shimizu, who has led the department, and of all the staff doctors. Lastly, I would like to say that, as researchers who've received this grant, we must work harder to contribute to further progress in medical science, because this grant is funded by the national budget.

#### What is the "JSPS Postdoctoral Fellowship for Research Abroad" Program?

To educate and secure young researchers with a global perspective who will forge the future of Japan's academic development, the "JSPS Postdoctoral Fellowship for Research Abroad" Program of the Japan Society for the Promotion of Science supports the overseas dispatch of able young researchers and helps them to concentrate on their long-term research. The candidates for this grant are limited to researchers not older than their mid-thirties, and it is a very competitive grant with a success rate of only 15 to 20%. Although the amount of grant varies depending on the commodity prices in the destination country, it's the best grant in Japan both in name and fact, because 3.8 to 5.2 million yen per year and round-trip travel costs are provided.

海外留学による研究生活において、研究そのものよりも重要なことは、収入面を確保することです。為替レートによって、手持ちの日本円の価値は日々変動しますが、収入さえ安定していれば、無理のない生活を海外で送ることができます。研究室によっては、潤沢な予算があって、研究者がポスドクとしての収入を十分に享受できる場合もあります。しかしながら、たとえそういった環境にあっても、自前で奨学金を得ることは、自分の懐を潤すだけではなく、周囲にも自分が能力のある人材だとアピールする重要な機会となります。北大皮膚科では、2010年以降に留学した私を含めた4名の教室員全員（柳、氏家、新熊、夏賀）が、海外留学中に日本学術振興会からの助成を受けております。海外の principle investigatorの間でも、日本学術振興会の略称である JSPS から受けられる助成についてはよく知られており、非常に価値のある助成と考えます。これは助成を受けた教室員だけではなく、教室で指導にあたってくださった清水教授を含めたスタッフの先生方の成果です。最後に、この学術振興会からの助成は国費の補助であり、私達はその助成を受けている者として、より一層医学の進歩に寄与しなくてはならないという思いを強くしています。

#### 海外特別研究員制度とは：

日本学術振興会の海外特別研究員制度とは、日本の学術の将来を担う国際的視野に富む有能な研究者を養成・確保するため、優れた若手研究者を海外に派遣し、長期間研究に専念できるよう支援するものです。採用者は年齢として30代中盤辺りまでと限定されるうえ、採用率は15～20%と狭き門です。派遣国の物価によって支給額は異なりますが、年額380万円～520万円と往復航空賃が支給されるため、国内で獲得できる奨学金の中では名実ともに最高峰のものです。

# Four awardees of JSPS Postdoctoral Fellowships from the Hokkaido University Department of Dermatology

## 北大皮膚科からの4人のJSPS助成金獲得者



I'm relaxing at a pub in the U.K.

イギリスのパブにてくつろぐ様子

**Ken Natsuga** (from September 2010 to August 2012, Cambridge Univ., U.K.)

夏賀 健 先生(2010年9月～2012年8月:ケンブリッジ大学(イギリス)へ留学)

3 selected papers / 主要論文3編

1. [Natsuga K](#) et al: Antibodies to pathogenic epitopes on type XVII collagen cause skin fragility in a complement-dependent and-independent manner. *J Immunol* 188:5792-9, 2012
2. [Natsuga K](#) et al: Plectin deficiency leads to both muscular dystrophy and pyloric atresia in epidermolysis bullosa simplex. *Hum Mutat* 31:E1687-98, 2010
3. [Natsuga K](#) et al: Plectin expression patterns determine two distinct subtypes of epidermolysis bullosa simplex. *Hum Mutat* 31: 308-316, 2010



Teruki Yanagi (left) and his boss Professor Reed

左:柳輝希、右:ボスのREED教授

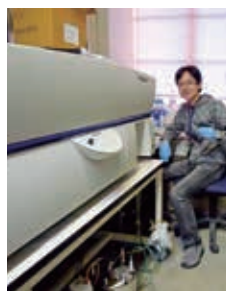
**Teruki Yanagi**

(from November 2010 to present, Sanford-Burnham Medical Research Institute, U.S.A.)

柳 輝希 先生(2010年11月～現在:サンフォード・バーナム医学研究所(アメリカ)へ留学)

3 selected papers / 主要論文3編

1. [Yanagi T](#) et al: AKT plays an anti-apoptotic role in ABCA12-deficient keratinocytes. *J Invest Dermatol*, 131: 1942-1945, 2011
2. [Yanagi T](#) et al: Self-improvement of keratinocyte differentiation defects during skin maturation in ABCA12 deficient harlequin ichthyosis model mice. *Am J Pathol* 177: 106-118, 2010
3. [Yanagi T](#) et al: Harlequin ichthyosis model mouse reveals alveolar collapse and severe fetal skin barrier defects. *Hum Mol Genet* 17:3075-3083, 2008



Hideyuki Ujiie experiments, surrounded by FACS (BD LSRII)

FACS(BD LSRII)に囲まれて実験中

**Hideyuki Ujiie** (from September 2012 to present, National Institute of Health, U.S.A.)

氏家 英之 先生(2012年9月～現在:アメリカ国立衛生研究所(アメリカ)へ留学)

3 selected papers / 主要論文3編

1. [Ujiie H](#) et al: Noncollagenous 16A domain of type XVII collagen-reactive CD4(+) T cells play a pivotal role in the development of active disease in experimental bullous pemphigoid model. *Clin Immunol* 142: 167-175, 2012.
2. [Ujiie H](#) et al: A novel active mouse model for bullous pemphigoid targeting humanized pathogenic antigen. *J Immunol* 184: 2166-2174, 2010.
3. Wang G\*, [Ujiie H](#)\* (\*Equally contributed) et al: Blockade of Autoantibody-Initiated Tissue Damage by Using Recombinant Fab Antibody Fragments against Pathogenic Autoantigen. *Am J Pathol* 176: 914-925, 2010.



I'm at Times Square  
タイムズスクエアと私

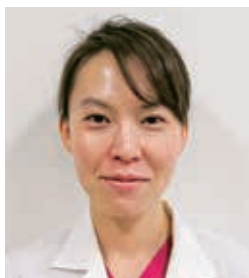
**Satoru Shinkuma** (from November 2012 to present, Colombia Univ., U.S.A.)

新熊 悟 先生(2012年11月～現在:コロンビア大学(アメリカ)へ留学)

3 selected papers / 主要論文3編

1. [Shinkuma S](#) et al: The  $\beta 9$  loop domain of PA-PLA1 $\alpha$  plays a crucial role in autosomal recessive woolly hair/hypotrichosis. *J Invest Dermatol*, 132: 2093-5, 2012.
2. [Shinkuma S](#) et al: Ultrastructure and molecular pathogenesis of epidermolysis bullosa. *Clin Dermatol*. 29: 412-419, 2011.
3. [Shinkuma S](#) et al: Prevalent LIPH founder mutations lead to loss of P2Y5 activation ability of PA-PLA1 $\alpha$  in autosomal recessive hypotrichosis. *Hum Mutat* 31: 602-610, 2010.

# 3 Topics トピックス



## On receiving the 2012 Excellent Paper Award of the Hokkaido University Graduate School of Medicine

### 北海道大学大学院医学研究科「優秀論文賞」受賞

**Nao Saito, Ph.D. Course Student**

文責：大学院博士課程 齋藤 奈央

I'm really honored to have received the Excellent Paper

Award of the Hokkaido University Graduate School of Medicine for my paper, "Stevens-Johnson syndrome/toxic epidermal necrolysis mouse model generated by using PBMCs and the skin of patients." I'd like to extend my heartfelt thanks to Professor Hiroshi Shimizu and Senior Associate Professor Riichiro Abe for their kind guidance and instruction, and to all the laboratory members and co-researchers for their generous help.

When I first received more than 40 questions on my paper from the reviewers, it took me a whole day just to read the questions. I was at a loss, and I thought my paper wouldn't be accepted because I wasn't able to answer all the reviewers' questions. However, I knew I couldn't give up, because of all the difficulties I'd experienced in writing the paper. I tried hard and submitted my responses. When Dr. Abe informed me of the acceptance of my paper, I was surprised and I felt a joy I'd never experienced. I remember, as if it were yesterday, calling Mr. Yoshioka, who'd been doing experiments with me in the lab, about the result.

このたび、「Stevens-Johnson syndrome/toxic epidermal necrolysis mouse model generated by using PBMCs and the skin of patients」の論文が医学研究科・医学部医学科「優秀論文賞」を受賞させて頂き、大変光栄に思っております。ご指導頂いた清水宏教授、阿部理一郎准教授、研究室の皆様、共同研究者の皆様にご心より感謝申し上げます。

reviewer（査読）からは質問が40以上あり、質問を読むだけで1日ばかりでどうしたらいいのか思案に暮れていました。何度か「reviewerからの質問に答えられなくても論文も駄目かな」と思いましたが、これまでの苦労を思い出すと諦めることができませんでした。査読の返事をしたのちに阿部先生からアクセプトされたことを伝えられ、驚きとともに今までに感じたことのない喜びを感じました。そのあとすぐに一緒に実験をしていた吉岡さんに連絡したのを昨日のことのよう覚えています。



After the awards ceremony. I'm the second from right in the second row  
中段、右から2番目が受賞者



At the awards ceremony  
授賞式の様子



# Excellent Paper Award of the Hokkaido University Graduate School of Medicine

This award program was launched in 2005 to honor the authors of papers published in journals whose impact factor is ten or higher.

## 北海道大学医学研究科優秀論文賞

北海道大学大学院医学研究科において2005年度より設置され、インパクトファクターのスコアが10以上の雑誌に掲載された論文を対象に選出される賞

## Awardees from the Hokkaido University Department of Dermatology (since FY 2005)

### 北大皮膚科からの受賞者(2005年度以降)



**Wataru Nishie** (FY 2007) 西江 渉 先生 (2007年度)

Humanization of autoantigen.  
Nishie W, Sawamura D, Goto M, Ito K, Shibaki A, McMillan JR, Sakai K, Nakamura H, Olasz E, Yancey KB, Akiyama M, Shimizu H.  
Nat Med 13:378-383, 2007.

Doctoral thesis  
Currently: Associate Professor

大学院博士論文  
現在:講師



**Riichiro Abe** (FY 2009) 阿部 理一郎 先生 (2009年度)

Granulysin as a marker for early diagnosis of the Stevens-Johnson syndrome.  
Ann Intern Med 151: 514-515, 2009.

In 2009: Associate Professor  
Currently: Senior Associate Professor

受賞時:講師  
現在:准教授



**Yasuyuki Fujita** (FY 2010) 藤田 靖幸 先生 (2010年度)

Bone marrow transplantation restores epidermal basement membrane protein expression and rescues epidermolysis bullosa model mice.  
Fujita Y, Abe R, Inokuma D, Sasaki M, Hoshina D, Natsuga K, Nishie W, McMillan JR, Nakamura H, Shimizu T, Akiyama M, Sawamura D, Shimizu H.  
Proc. Natl. Acad. Sci. USA 107:14345-14350, 2010.

Doctoral thesis  
Currently: Assistant Professor

大学院博士論文  
現在:助教



**Shintaro Tanimura** (FY 2011) 谷村 心太郎 先生 (2011年度)

Hair follicle stem cells provide a functional niche for melanocyte stem cells.  
Tanimura S, Tadokoro Y, Inomata K, Binh NT, Nishie W, Yamazaki S, Nakauchi H, Tanaka Y, McMillan JR, Sawamura D, Yancey K, Shimizu H, Nishimura EK.  
Cell Stem Cell 8: 177-187, 2011.

Doctoral thesis  
Currently: Department Director, Chitose City Hospital

大学院博士論文  
現在:市立千歳市民病院・医長



**Nao Saito** (FY 2012) 齋藤 奈央 先生 (2012年度)

Stevens-Johnson syndrome/toxic epidermal necrolysis mouse model generated by using PBMCs and the skin of patients.  
Saito N, Yoshioka N, Abe R, Qiao H, Fujita Y, Hoshina D, Suto A, Kase S, Kitaichi N, Ozaki M, Shimizu H.  
J Allergy Clin Immunol 131: 434-441, 2013.

Currently: Ph.D. Course Students

現在:大学院博士課程

# 4 Topics

## New outpatient system starts

### 大学病院外来システムを変更しました



As an effort to further improve the quality of medical care

and education of the Hokkaido University Department of Dermatology, a full outpatient referral system was introduced in October 2012. Patients who make reservations through the University Hospital's Medical Liaison Center or those who have a letter of referral are accepted as before. Patients who visit the clinic for the first time without an appointment or referral and those who visit six months or more since their last visit and whose history of appointment cannot be confirmed basically need to obtain a letter of referral (medical information). Emergency cases are accepted even without such a letter. The staff, who had various opinions, had discussions repeatedly for six months before reaching a consensus. As a result of the new system, it has become possible to take sufficient time for first-visit patients with complicated clinical conditions. In terms of education, which is a major role of the university, the new system, which reduces the time doctors spend in the outpatient clinic seeing first-visit patients without previous medical information, has contributed to increases in the intensity of education for students and residents. There was the concern that a reduction in the number of patients might reduce profits; however, the increase in unit fee has made it possible to achieve the target figures for November 2012 and after. A similar system was introduced in the Department of Urology in February 2013. The Hokkaido University Hospital plans to introduce the full outpatient referral (and reservation) system to all its outpatient clinics in October 2013. Thanks to hard work in handling increased procedures by doctors at affiliated institutions, we'll be able to screen and accept patients whose conditions are determined to warrant treatment at the university hospital. I'd like to ask all the doctors of affiliated institutions for their continued cooperation.

Yasuyuki Fujita, Assistant Professor

文責: 助 教 藤田 靖幸

北大皮膚科での診療・教育のクオリティをさらに上げる取り組みとしまして、2012年10月より外来診療の完全紹介制を導入いたしました。地域連携室を通して予約された患者様や、紹介状をお持ちの患者様は従来通り受診いただけますが、完全な初診の患者様や、最終受診から半年以上経過し予約の履歴が確認できない患者様につきましては、緊急の場合を除いて基本的に紹介状（診療情報提供書）が必要になります。様々な意見がありましたが、約半年間協議を繰り返し、スタッフ全員の総意で導入に至りました。その結果、複雑な病態を持つ初診患者様を十分な時間を掛けて診療することが可能になりました。大学が担う大きな役目の一つである教育という点では、初診外来で待機患者様の診療に追われることが減り、学生/研修医への教育密度が増えました。患者数の減少による収益の悪化が懸念されておりましたが、単価の上昇などにより2012年11月以降は目標額を達成しております。また、ほぼ同様の紹介制を2013年2月から泌尿器科が導入するほか、北大病院全体においても2013年10月以降は基本的に全診療科において紹介制（＋予約制）が導入される方向で動いています。関連施設の先生方のお手を煩わせる機会が増え大変恐縮ですが、大学での加療が望ましいと判断された患者様につきましては積極的に受け入れさせていただきます。引き続き御理解と御協力をお願い申し上げます。



Letters of referral (medical information)

ご紹介いただいた患者様の経過は逐次報告させていただきます