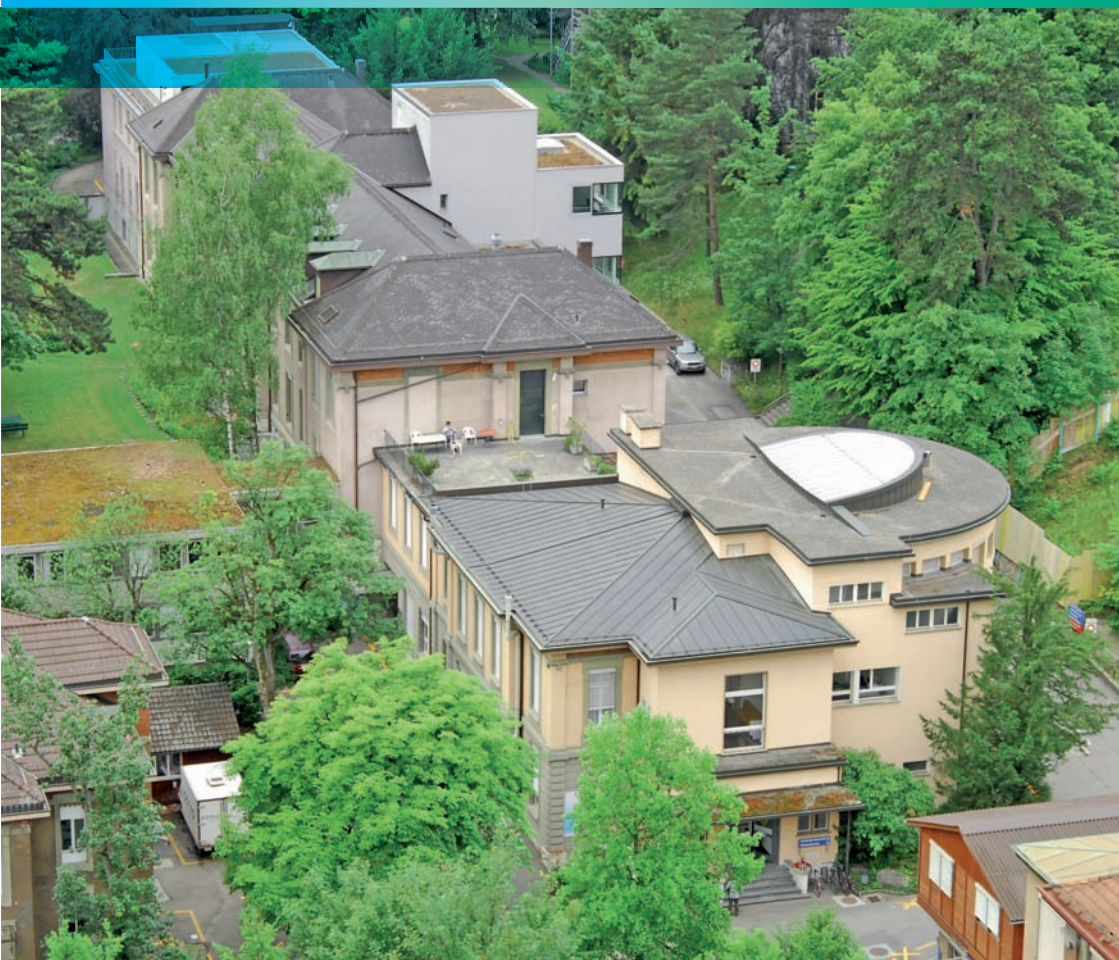


Department of Dermatology, Inselspital,  
University Hospital Bern  
**Activity Report 2010**

 **INSELSPITAL**

UNIVERSITÄTSSPITAL BERN  
HOPITAL UNIVERSITAIRE DE BERNE  
BERN UNIVERSITY HOSPITAL





# Foreword

## Introduction

The Department of Dermatology of the University Hospital of Bern is pleased to provide its first activity report under the lead of Professor Luca Borradori. Since the change of the chairmanship in July 2008, the Department has undergone substantial changes in overall spirit, in the medical staff as well as in overall organization. Requisite changes positioned the Department in correctly to face the new challenges imposed by the new developments in the Swiss health care system as well as by the current economic landscape. The overall goals are to provide high level medical care and services in close collaboration with both other Hospital Departments and external specialists to carry out translational clinical and basic research, and, finally, to ensure the best possible pregraduate and postgraduate teaching. Efficient management with improvement of the various processes has emerged as indispensable to meet increasing budgetary constraint.

*Prof. Luca Borradori*  
*Director and Chairman*

*Therese Zürcher*  
*Chief nurse*



## Staff and collaborators

(as for 31. 12. 2010)

Director and Chairman

Professor L. Borradori

Vice-Chairman

Professor Th. Hunziker

Chief Nurse

Th. Zürcher

Faculty and Chiefs

Professor R. Hunger

Professor N. Yawalkar

Chief secretary

M. Schenk

Head of secretaries

J. Sprecher

Research & development

Dr B. Favre

Chief physician clinical ward

Dr N. Pelivani

Dermatopathology sector

Dr H. Beltraminelli

PD Dr I. Hegyi

Attending physicians

Dr L. Parmentier,

Dr Th. Schneiter,

Professor D. Simon

Consultants and lectors

Dr M. Adatto (Laser), Dr P. de Viragh

(Trichology), Dr K. Fritz (Laser),

Professor E. Haneke (Nail diseases),

Dr H. Nievergelt (Histopathology),

Dr A.-A. Ramelet (Phlebology),

Dr A. Skaria (Mohs-Surgery)

Residents

C. Blazek, Dr M. Corti, R. Della Torre,

Dr N. Irla, Dr D. Perruchoud,

Dr Z. Spanou, M. Stieger, Dr A. Surovy

## Background

- The Department of Dermatology is part of the Inselspital, University Hospital of Bern. The Inselspital belongs to a private foundation the Inselstiftung. The latter has an agreement with the Canton of Bern to serve as a tertiary health care center for the population of the Canton of Bern and as a University teaching hospital.
- The Department of Dermatology within the Inselspital is a tertiary referral center for skin and sexually-transmitted diseases. Patients are referred from all over Switzerland. More than 20% of the treated patients come from outside the Canton of Bern.

## Structural organization, medical staff and nurse team

- Our Department comprises an in-patient section with 22 beds, an out-patient section with several specialized clinics, a day hospital for management of complex cases with emphasis on chronic wounds, a phototherapy unit, a surgical unit, a laser platform, as well as a dermatopathology unit.
- The medical staff consists of 10 senior physicians and 8 junior physicians. There are currently one Professor, four associate Professors and one senior lecturer. Furthermore, there are 7 part-time board-certified consultants and lecturers. The Department regularly hosts a number of guest physicians in training and board-certified dermatologists from European and non-European countries for elective periods.
- The medical staff works in tight collaboration with the specialized out-patient and in-patient nursing teams. The latter take particular care in ensuring the best education and practice quality in nursing. The nursing activity for the in-patients ward and distinct out-patient activities has earned an ISO accreditation attesting a high level of quality of the standards of the provided nursing practice.

## Specialized nursing team

The nursing team is headed by Mrs T Zürcher, member of the department's directorate. The nursing team constitutes the largest group among medical personnel working in the Department of Dermatology and represents the critical backbone requisite to providing the specialized high level medical care of patients. Mrs Zürcher and her closest collaborators (Mr M. Held, Mrs B. Zurbuchen, Mrs T Gross, Mrs B. Nydegger) have been faced with a number of significant organizational changes and new goals over recent years.

The most significant challenges have been to deal with a new management pathway of in-patients with a significant reduction in the length of the hospital stay and a rapid turnover of patients in the clinical ward, an increased number of out-patient surgical cases related amongst others, to the introduction of the micrographic Moh's surgery, as well as the implementation of new therapeutic approaches with related training, including UVA1 phototherapy and lasers. Furthermore, in the light of increasing budgetary restriction, the personnel pool has to be constantly adapted to needs with always the ultimate goal of increased efficiency. Finally, the nursing team is keen to maintain a high standard of care. These efforts are reflected by the regular internal and external controls meeting the quality management standards required to maintain certification.

## Patients and technical statistics

The number of in-patients is approximately 550 per year. There are up to 20 000 out-patient consultations per year. 3 500 patients are cared for at the wound care clinic, up to 5 500 phototherapy treatments and 2 000 surgical procedures are routinely performed. The dermatohistopathology sector processes and analyses 18 000 skin biopsy specimens per year and is one of the largest dermatopathology units in Switzerland.

## Objectives

The main goals of the Department of Dermatology are

1. to provide *high quality medical care and service* by offering a spectrum of *specialized ambulant consultations* as well as appropriate evaluation and management of patients requiring hospitalization. Respect of patients' dignity and overall ethical issues are of constant concern for patient treatment,
2. to carry out *clinical, translational and basic research*. The ultimate objective is to ensure best patient care, state of the art therapy and to have a better understanding of disease mechanisms,
3. to provide intensive teaching for pre-graduate and postgraduate students in medicine and biomedical sciences, residents, physicians and specialists of dermatology and venereology, as well as other specializations.

Overall, the Department is very enthusiastic and highly motivated to share experiences in clinical evaluation, management and treatment of dermatological patients through interface with other partners as well as to develop clinically oriented and basic investigative research projects in collaboration with other researchers or with pharmaceutical companies.

## Current challenges

The structure of the Swiss health system is undergoing a substantial reorganization. The Swiss health system is one of the most expensive in the world. Measures are being taken in an effort to reduce expenditures for both in-patient and out-patient services. This situation has put hospitals under pressure with budget cuts and rigorous budgetary control, making the implementation of cost-containment measures and the reassessment of the running of the Department including patient management and medical services essential.

## Activity and areas of expertise

Our interest is currently focused on the evaluation and management of:

1. Skin cancers including clinical evaluation, management and systematic follow up of melanoma and non-melanoma skin cancer patients using video-microscopy and digital imaging devices
2. Dermatosurgery, including Mohs' micrographic surgery
3. Chronic wound care with use of tissue-engineered skin equivalents and novel wound dressings
4. Pigmentation disorders with development of melanocyte transplantation approaches and of other treatments such Excimer laser
5. Inflammatory skin diseases, such as psoriasis and atopic dermatitis as well as autoimmune blistering skin disorders
6. Congenital vascular malformation, blistering and fragility syndromes of the skin
7. Acne and hidradenitis suppurativa
8. Chronic venous disorders
9. Nail disorders with specific conservative and surgical treatments
10. Dermatopathology

## Detailed clinical services

In the following section the specialized out-patient clinics available in our Department and specific areas of clinical and research interests are presented.

## Melanoma and pigmented lesion clinic

(responsible: Professor R. Hunger)

The incidence of malignant melanoma is rapidly growing. The current incidence rate in Switzerland is 22 new cases per 100 000 inhabitants followed by over 200 melanoma related deaths each year. While early stages can be cured by surgical excision, late stages have a poor prognosis.

sis. To best follow up patients with malignant melanoma and to recognize these tumours at an early stage two specialized consultations are available:

#### Malignant melanoma and pigmented lesions

1. We provide regular clinical follow-ups for our patients with atypical moles and malignant melanoma. The regular examinations are important to exclude disease progression as early as possible. Since patients with melanoma have an increased risk to develop a second melanoma, regular full skin examination is essential.
2. Dermoscopy/videomicroscopy. Patients with multiple dysplastic nevi and other patients at high risk for melanoma are regularly evaluated using a digital dermoscopic system (Fotofinder). This technique allows the detection of even the slightest changes in the pigment pattern of the lesions, increasing the sensitivity and specificity of diagnosis.

## Non-melanoma skin cancer clinic

(responsible: Dr L. Parmentier)

Non-melanoma skin cancers (NMSC) such as basal cell carcinoma and squamous cell carcinoma represent a medical and epidemiological challenge in Western countries. This is related first to the significant increase of skin cancers (4-8 % in Europe per year) as a consequence of the current life style (sun exposure) as well as the ageing of the population. In this context, there is a growing need and demand for skin surgical approaches ensuring good aesthetic results. Switzerland has the highest incidence of NMSC. Since the Inselspital is one of the Swiss referral centers for organ transplantation, we are also frequently involved in the evaluation and management of skin tumours in this high-risk organ recipient population. Our clinic has thus a strong commitment to management of skin tumours of peculiar complexity. A close collaboration with the Department of Plastic and Reconstructive Surgery (Chair: Professor A. Banic) exists.

To address these issues, specific platforms and therapies are developed and performed, respectively

1. Tumour board: Interdisciplinary evaluation of patients with complex cutaneous cancers together with the Department of Plastic and Reconstructive Surgery.
2. Dermatologic surgery, with particular focus on Mohs' micrographic surgery.
3. Non-invasive therapeutic approaches, such as photodynamic therapy (PDT), cryosurgery, and non-invasive topical immunomodulatory therapies.

## Dermatosurgery clinic and micrographic surgery

(responsible: Dr L. Parmentier, Dr A. Skaria)

Micrographic surgery is a technique, which combines the surgical procedure with an immediate intraoperative histopathological assessment of the excised tumour. Its goal is twofold: first, to diminish the rate of recurrence of epidermal tumours from up to 20% in classical surgery down to 1-4% using Mohs' surgery; second, to improve the cosmetic result. The majority of treated tumours are mostly NMSC. Nevertheless, a modified technique called slow-Mohs' surgery also allows the treatment of certain forms of sarcomas and malignant melanomas. So far, these techniques represent the golden standard of treatment in the USA.

Our Department is one of the few centers in Switzerland, which provides Mohs' surgery. In Bern this approach has been introduced by Dr A.M. Skaria, who is currently the chairman of the dermatosurgery committee of the Swiss Society of Dermatology and Venereology.

## Psoriasis clinic

(responsible: Professor N. Yawalkar)

Psoriasis is a common inflammatory skin disease of variable severity with significant morbidity and impact on quality of life. Evidence exists indicating that psoriasis may be associated with serious comorbidities

such as cardiovascular and metabolic diseases. The underlying pathomechanisms are not yet fully understood. Recent advances in our understanding of the pathomechanisms of psoriasis have opened the way for new therapeutic strategies in psoriasis, such as the use of targeted therapies with biologic treatments.

In our specialized psoriasis clinic the following services are provided:

- topical and systemic treatments including phototherapy, traditional immunosuppressive agents (methotrexate, retinoids, and ciclosporin) and biologics such as tumour necrosis factor inhibitors (etanercept, infliximab, adalimumab) and anti-IL-12/23p40 monoclonal antibodies (ustekinumab) are routinely used
- interdisciplinary medical education courses provided by dermatologists, psychologists and nutritionists are offered to affected patients and their families, an exclusive opportunity in Switzerland
- clinical research studies aimed at testing novel biologic treatments are carried out. The clinic participates in phase 2 and phase 3 trials. The clinic is also directly involved in basic investigative studies focused in the characterization of the immune and inflammatory response in psoriasis (see research part).

## Autoimmune skin diseases clinic

(responsible: Professor L. Borradori, Professor T. Hunziker)

- Our Department has a specific interest and expertise in the evaluation, diagnosis and management of patients with severe autoimmune blistering diseases of the skin and mucosa, such as bullous pemphigoid, epidermolysis bullosa, pemphigus and cicatricial pemphigoid, and gestational pemphigoid which is unique in Switzerland. Furthermore, we are interested in the evaluation and management of patients with cutaneous manifestations of systemic diseases, such as systemic lupus erythematosus, dermatomyositis, scleroderma, vasculitis and Adamantides-Behçet disease. In this context, our clinic is involved as tertiary

referral center for patients from the Canton of Bern and from all over the country.

- Besides the clinical management of patients with autoimmune diseases, we are directly involved 1) in clinical multicenter European studies aimed to characterize the clinical course, severity and prognostic markers in affected patients; 2) in the development of diagnostic tools such as ELISA for improved diagnosis and better follow up; 3) in basic investigative studies to assess the immunological humoral and cellular response in affected patients (see research part).
- For correct evaluation of patients and classification of autoimmune diseases, we provide the required immunopathological analyses, such as direct and indirect immunofluorescence microscopy techniques (with various substrates), as well as immunoblot and immune-precipitation techniques using recombinant proteins. Finally, we have contributed to the development of several different novel diagnostic ELISA tests.

## Eczema and atopic dermatitis clinic

(responsible: Professor D. Simon)

Eczematous skin diseases are very common and concern over 20% of dermatologic patients. For instance, atopic dermatitis affects more than 10% of children between the ages of 6 to 7 years. Irritant and allergic contact dermatitides as well as occupational eczemas are common in adults. These groups of cutaneous diseases are characterized by an acute and/or chronic inflammation of the skin and intense itch. Therefore, they have an enormous impact on the quality of life and are of medical as well as socioeconomic importance.

This specialized clinic provides all diagnostic and therapy facilities for patients with eczematous skin diseases. Diagnostic tests comprise blood and skin tests (patch test, skin prick test, atopy patch test, and provocation tests) to identify exogenous and endogenous pathogenic factors. Comprehensive management of affected patients encompasses installa-

tion of adequate anti-inflammatory topical and systemic therapies, skin care and skin protection teaching courses, psychological advice and support, as well as avoidance of triggers in daily life and occupational activities. Finally, we offer specific medical education courses for atopic dermatitis patients provided by dermatologists, allergists, psychologists, nutritionists, which are unique in Switzerland.

Our on-going research projects include clinical studies focusing on pathogenic mechanisms of allergic skin diseases such as atopic dermatitis and contact dermatitis, as well as eosinophilic skin diseases.

## Paediatric dermatology clinic

(responsible: Dr K. Kernland Lang)

Dr K. Kernland Lang, consultant in dermatopaediatrics, ensures evaluation and management of children and adolescents with skin diseases. In particular, she is specialized in the evaluation of children with genetic, infectious, and endocrine diseases. Patients are evaluated in close collaborations with the University Children's Hospital of Bern.

There are two major areas of interest and expertise:

1. Vascular malformations evaluated in the context of an interdisciplinary haemangioma board (together with paediatricians, angiologists and paediatric surgeons). The board takes advantage of the fact that the Department of Paediatric Surgery (chair: Professor Z. Zachariou) is the reference center in Switzerland for large haemangioma and interstitial laser therapy. Vascular lesions involving the skin are however primarily managed by our laser team.
2. Diagnosis and management of patients with inherited skin blistering disorders such as epidermolysis bullosa (EB). We offer a specialized and comprehensive interdisciplinary evaluation of affected patients by the EB network consisting of paediatricians, gastroenterologists, dentists, plastic surgeons, and dieticians/nutritionists. Furthermore, molecular diagnosis for a variety of congenital diseases is provided in close

collaboration with various leading European laboratories. We have a specialized team ensuring appropriate wound dressing care and physiotherapy of affected EB patients. Finally, we also provide information and support to people living with these disorders as well as their family members and friends.

## Laser clinic

(responsible: Dr M. Adatto, Dr U. Büttiker, Dr K. Fritz, Dr N. Dietrich)

The laser clinic manages both in- and out-patients by using various laser types and light sources. Established and innovative therapies are provided under the supervision of experienced laser specialists to provide high clinical care. Dr Adatto and Dr Fritz have directly been involved in the development of laser devices in collaboration with various American and European companies.

Our laser center is equipped with state of the art laser devices (e.g. Cynergy Lasers). A close collaboration with specialists from other Departments (angiology, paediatrics, and paediatric surgery) allows interdisciplinary clinical management.

- Efforts are made to improve therapy algorithms by the use of lasers for a number of skin disorders, such as vascular malformations, pigmentary disorders and vitiligo, psoriasis, eczema, inflammatory skin conditions, and acne. Furthermore, we are also involved in studies aimed at assessing the impact of laser wavelengths on tissue reaction, safety aspects, as well as aesthetic issues.
- With regard to clinical research, we are currently analyzing the effect of distinct lasers on pigmentation disorders (Excimer, IPL), rosacea, psoriasis (Excimer and pulsed dye laser), atopic eczema (light vaccination, multicenter trial with Optomed), actinic keratoses (laser PDT) and acne (blue and red light laser sources).
- The clinical staff consists of Dr M. Adatto, past-President and Honorary Member of the European Society of Laser Dermatology as well as medical director of Skinpulse Dermatology and Laser center Geneva,

Dr U. Büttiker, co-founding member of the Swiss group of esthetic dermatology and skin care, Dr K. Fritz, specialist in laser dermatology and current President of the European Society of Laser Dermatology (ESLD), Dr N. Dietrich, dermatologist with specific interest for lasers.

## Trichology clinic

(responsible: Dr P. de Viragh, Dr N. Pelivani)

We provide a specialized evaluation and care of patients with complex and severe diseases of the scalp and hair. Expert evaluation and individualized therapy are mandatory in cases of hair loss, hair structure alteration, and scalp inflammation or scarring.

To properly evaluate patients, the following exams are carried out:

- microscopical analysis of hair samples (trichogram) to assess structural abnormalities, establish the rate of hair loss, or identify genetic influences
- scanning electron microscopy for definitive diagnosis of hereditary hair abnormalities
- stereotactic photography and computer-assisted digital imaging (trichoscan) is used to evaluate treatment efficacy objectively
- dermoscopic scalp evaluation (trichoscopy)
- scalp biopsies for examination by light microscopy and immunohistochemistry studies.

The scientific experience in the field of hair physiology and diseases of the pilosebaceous follicle is attested by numerous presentations at international meetings and publications by the involved staff, as well as by the ongoing research activities such as treatment protocols for alopecia areata, therapy of chemotherapy-induced hair loss.

## Nail disease clinic

(responsible: Professor E. Haneke)

In a dermatological practice, up to 15% of the patients present with nail disorders. The current knowledge in this area is not always satisfactory and management of many nail diseases has been limited due to lack of specific and effective therapeutic modalities. For example, onychomycoses that affect up to a third of the elderly still represent a problem with a complete cure rate remaining below 50%. Furthermore, treatment of nail psoriasis is still challenging, despite the availability of systemic biological treatments. Evaluation of nail diseases and their diagnosis are further hampered by the fact that few dermatopathologists and pathologists have the required experience with the interpretation of nail biopsies. Most physicians are reluctant to biopsy the nail organ. Finally, some nail diseases require a specific surgical approach, and few experts are familiar with nail surgery.

In our nail clinic we offer both conservative and surgical management for a variety of inflammatory, infectious, tumoral and congenital nail diseases. Our clinic provides a unique expertise in nail surgery throughout Europe.

## Phlebology clinic

(responsible: Dr A.A. Ramelet, Dr U. Büttiker Professor T. Hunziker)

More than 50% of the adult population in Western countries suffers from chronic venous disorders (CVD). Besides varicose veins, the most severe form of CVD, chronic venous insufficiency, occurs in up to 10% of the people. CVD is responsible for and may lead to acute and/or chronic eczematous diseases, pigmentation problems, leg oedema, dermatoliposclerosis, and leg ulcers, resulting in high morbidity and health costs.

- Our Department is specialized in the clinical evaluation, clinical investigation (plethysmography, cw-Doppler and colour duplex) as well as in both the conservative (compression, venoactive drugs, physiotherapy) and surgical (sclerotherapy, echo-guided sclerotherapy, surgery) treatment of CVD. There is a tight collaboration with the Department of Angiology in Bern (Professor I. Baumgartner, Dr T. Willenberg), which is of fundamental importance for comprehensive and multidisciplinary evaluation of patients.

## Chronic wound care center

(responsible: Professor T. Hunziker, Dr N. Pelivani)

The management of chronic wounds, severe venous or lymphatic disorders is organized in close collaboration with the chronic wound care center. Our Department has a large out-patient day clinic specifically dealing with evaluation and management of recalcitrant skin wounds of venous, arterial, neuropathic, tumoral and/or of inflammatory origin. The running of the clinic and patients' management are critically supported by specialized nurses. Here we provide the entire spectrum of medical services, such as conservative (e.g. use of novel wound dressings, use of skin equivalents) and surgical treatments (conventional skin grafting, and complex grafting procedures).

For the management of chronic wounds our team frequently takes advantage of tissue-engineered skin equivalents. Specifically, our center has developed a technique enabling the generation of autologous epidermal skin equivalents using hair directly taken from affected patients (see research part). The latter approach has been shown to be useful and cost-effective for the management of distinct chronic venous and mixed venous-arterial wounds. The costs for the application of autologous epidermal skin equivalents are now covered by Swiss health insurances.

## Dermatopathology unit

(responsible: PD Dr I. Hegyi, Dr H. Beltraminelli, Dr H. Nievegelt)

The Dermatopathology sector deals with the processing and evaluation of 15 000 to 18 000 tissue samples per year (with 50 000 slides). Biopsy specimens are referred from our Department (30%) of the university hospital and from dermatologists from all over the country (70%).

- The diagnostics cover the entire diagnostic spectrum of inflammatory, autoimmune and neoplastic skin diseases using conventional histological investigation, immunohistochemistry and molecular technologies (in collaboration with the Institute of Pathology University of Bern). Our interest is specifically focused on the diagnosis of cutaneous lymphomas, melanocytic tumours and inflammatory diseases.
- The team of dermatopathologists is actively implicated in postgraduate teaching courses in dermatopathology. Furthermore, it provides weekly the clinical-pathological correlation during the meetings of our clinical staff.

## International activities in the field of dermatopathology

- Since 2009 there is an intense collaboration with the Regional Dermatology Training Centre (RDTC) in Moshi, Tanzania. We provide human and technical support for the development of the local dermatopathology unit.
- Our dermatopathology sector has been officially recognized as training centre in dermatopathology by the International Committee for Dermatopathology ([www.icdermpath.org](http://www.icdermpath.org)).

## Service

Consultations	2009	2010
Out-patient unit		
<b>Number of consultations</b>		
Out-patient unit (including private consultations)	16 340	17 320
Day care clinic	3 166	3 407
Surgery sector	1 799	2 154
Phototherapy sector	4 410	4 068
Corrective cosmetic procedures	689	721
<b>Number of patients</b>		
Out-patient sector	7 445	8 108
Private consultations	994	1 013
Day care clinic	376	355
Surgery sector	811	1 008
Physical treatment unit, Phototherapy sector	422	421
<b>Activity of the hospital In-patient unit</b>		
Number of hospitalized patients	532	573
Total of hospital days	4 403	3 962
Number of day care patients	106	131
Hospital average length of stay	8.1	6.7
<b>Activity of the dermato-allergology laboratory</b>		
Patch tests (number)	6 579	7 537
<b>Activity of the dermatopathology sector</b>		
Processed external biopsy specimens	10 806	11 477

# Research and development projects

## 1. Autoimmune blistering diseases: bullous pemphigoid and pemphigus

Our group is implicated in studies aimed at understanding the *patho-physiologic mechanisms of pemphigoids and pemphigus*, a group of severe autoimmune blistering diseases of the skin and mucosae. These diseases run a chronic course, are frequently difficult to treat and are associated with a significant morbidity and mortality.

Overall, understanding the etiopathogenesis of pemphigus and pemphigoid may provide crucial additional insights into basic mechanisms of autoimmunity and may help to design more specific therapeutic strategies.

The **pemphigoids** include bullous pemphigoid, gestational pemphigoid and cicatricial pemphigoid. They are a relatively common group of autoimmune blistering disorders associated with autoantibodies directed against two proteins of the cutaneous basement membrane zone, BP180 and BP230. The current project is aimed at: 1) characterizing the humoral and autoreactive T cell response to BP180 and BP230 in the disease course of the pemphigoids; 2) identifying laboratory markers predicting disease activity and outcome; 3) developing innovative diagnostic tools such as ELISAs and microarrays for the detection of patients' autoantibodies with high sensitivity and specificity.

**Pemphigus** is another severe autoimmune blistering disease of the skin and mucous membranes. There are two major types of pemphigus: pemphigus foliaceus and pemphigus vulgaris. There is a related disease called paraneoplastic pemphigus sharing some overlap with pemphigus. They are caused by the production of IgG autoantibodies directed against cell-cell adhesion complexes, called desmosomes. Specifically, two transmembrane desmosomal proteins are characteristically targeted by patients' autoantibodies, desmoglein 1 and desmoglein 3. Paraneoplastic pemphigus autoantibodies target several intracellular linkers of the cytoskeleton, a family termed plakins, and a novel

protein identified in our laboratory, called alpha-2-macroglobulin-like-1 protein, which fluctuates as an extracellular, broad range protease inhibitor.

Our current project represents a joined effort of seven European groups promoted by the European Framework programme VII with the following goals: 1) to better define the immune pathogenesis of pemphigus utilizing two in vivo models of pemphigus with emphasis on autoaggressive T cells and their collaboration with autoantibody secreting B cells; 2) analysis of the autoantibody-driven effector phase frequently involving «epitope spreading»; 3) characterization of the molecular events leading to intraepidermal blistering; 4) analysis of the impact of therapeutic strategies such as the monoclonal antibody anti-CD20 (rituximab) on the cellular and humoral autoimmune response in pemphigus, and 5) definition and establishment of clinical parameters as valid measurements for the extent and activity of the disease and life quality assessment in pemphigus.

## **2. Characterization of the interactions between spectraplakins and IF proteins**

The group is primarily implicated in basic investigative studies aimed at characterizing 1) the association of plakin family members, plectin, desmoplakin and BPAG1e, with various intermediate filaments in epithelia and striated muscle cells; 2) the regulation of these interactions by posttranslational modifications (such as phosphorylation), and 3) the contribution of the plakins to the overall organization of the cytoskeleton by linking intermediate filaments to the two other components of the cytoskeleton, the microfilaments and the microtubules, and to membrane complexes. All these connections are critical for the maintenance of the cell architecture and tissue resilience to mechanical forces. In fact, mutations in the genes coding for plectin, desmoplakin, BPAG1e, and intermediate filaments cause a variety of devastating human diseases, attesting to the importance of these proteins for tissue integrity.

### 3. Psoriasis research

Our studies are aimed at investigating basic immunological mechanisms, e.g. cytokines and chemokines and their regulation through therapeutic interventions in psoriasis. As control, findings are compared to those obtained in different forms of eczema. These investigations may help to identify new targets for future therapeutic intervention.

### 4. Translational medicine: cell therapies for chronic wounds and pigmentation disorders

Our clinic provides various approaches involving tissue engineering for skin wound treatment. Specifically, we offer

- autologous ORS (= outer root sheath of plucked anagen scalp hair follicles)-derived keratinocyte transplantation [product EpiDex®]
- allogeneic, two-cell-type (fibroblasts and keratinocytes) wound stimulation [Allox®] - ORS-derived autologous melanocyte transplantation for skin depigmentation diseases, such as vitiligo.

Professor Thomas Hunziker has spent many years in the research field of tissue engineering with development of new approaches devoted to the treatment of skin defects. In independent and collaborative studies, his team developed tested and introduced respectively onto the market two tissue engineered products, EpiDex® and Allox®.

### 5. Cutaneous drug reactions

The main research goals are 1) to improve the understanding of the molecular interactions of drugs/chemicals with immune cells, i.e. T cells, dendritic cells and 2) to dissect the mechanisms by which these interactions stimulate and affect the immune system. These studies are planned to pave the way for improved methods to diagnose adverse drug reaction and to improve risk assessment of chemicals/drugs. These studies are performed in close collaboration with the Division of Allergy (Professor W. Pichler) of the Inselspital in Bern.

## 6. Atopic eczema and contact dermatitis

Pathogenic mechanisms of chronic inflammatory skin diseases including eczema represent an important research area in our Department. By analyzing the skin infiltrating cells and cytokines as well as their regulation, we aim to better understand the pathophysiologic mechanisms of eczema. Within this research frame, our interest is specifically focused on the function of eosinophilic granulocytes. Better characterization of their pathogenic role in eosinophilic skin diseases is expected to help the development of new therapeutic strategies.

## 7. Hidradenitis suppurativa

Hidradenitis suppurativa (also called acne inversa) is a chronic inflammatory disorder of the apocrine gland-bearing skin. The clinical course can be devastating. End-stage hidradenitis suppurativa is disabling and has a profound impact on the quality of life. At present, the pathophysiology of this condition is still poorly understood. To better understand its mechanisms we are performing the following studies: 1) analysis of the expression of Toll-like receptor 2 (TLR2) in lesional tissue, which seems to play an important role in maintaining the chronic inflammation; 2) characterization of the role of different subsets of macrophages (M1 and M2 subsets) and T cells (Th1 and Th2 cells) in the immune response. To this end, we have established a novel method to isolate the infiltrating cells from the lesions to perform flow cytometric analysis.

## 8. Non-melanoma skin cancers

The research is focused on skin and oral squamous cell carcinomas. Our study aims to identify clinically suitable molecular markers for metastatic properties, tumour development and tumour recurrence potential by combining proteomic (tissue microarray, immune- histochemistry, in situ hybridisation, FISH) and genomic (cDNA array RT-PCR) techniques. These studies are expected 1) to be useful for the selection of high-risk patients who may benefit from more aggressive treatment and follow-up protocols and 2) to identify target genes for novel pharmacological intervention.

We are currently establishing cohorts of patients with NMSC in the local population:

- to collect epidemiological data of the population at high risk for NMSC;
- *to characterize genetic factors conferring a high risk for developing skin tumours.* Bern and the adjacent regions show a relatively strong genetic homogeneity;
- to identify specific epigenetic factors: alimentation and other potential toxic exposure (e.g. arsenic) that may critically affect the development of NMSC besides sun exposure. As a matter of fact, some patients develop tumours in sun-protected areas.

## 9. Cutaneous T cell lymphoma

Primary cutaneous T-cell lymphomas (CTCL) represent a heterogeneous group of extranodal non-Hodgkin lymphomas. Mycosis fungoides (MF) and Sézary syndrome (SS), a leukemic variant, are the most common types. Transformed T cells in CTCL are typically memory CD45RO+ CD4+ T cells, produce Th2 cytokines, and display skin homing receptors such as cutaneous lymphocyte antigen (CLA) and CCR4. These cells have increased skin homing potential, explaining in part the high affinity of these cells for the skin. We have previously analyzed the frequency and distribution of dendritic cells (DC) in lesions of CTCL. Furthermore, we have recently performed a vaccination study with a human telomerase specific peptide (hTERT) in CTCL patients. The enzyme telomerase is critically involved in tumour cell immortalization. Further studies are aimed at investigating the role of Tregs in CTCL.

## Postgraduate teaching courses

- 14.01.2010 Probleme der alten Haut  
*Guests: Professor C.U. Brand, Luzern, Dr G. Kaya, Genève, Professor R. Panizzon, Lausanne*
- 25.02.2010 Häufige und seltene Haut- und Schleimhautmanifestationen bei Vaskulitiden, Kollagenosen und Autoimmunerkrankungen  
*Guests: Professor C. Frances, Paris, Professor J. Samson, Genève*
- 24.03.2010 Klinisch-immunologische Konferenz, BIC : Atopic dermatitis  
*Guests: Professor T. Bieber, Bonn, Professor S. Weidinger, München*
- 15.04.2010 Hautveränderungen der Vulva: oft eine Herausforderung für Dermatologen und Gynäkologen
- 27.05.2010 Iatrogen bedingte und autoimmune Reaktionen der Haut: ein Update  
*Guest: Professor S. Aractingi, Paris*
- 11.11.2010 Handekzeme: neue berufsdermatologische und therapeutische Aspekte  
*Guest: Dr H.P. Rast, SUVA Luzern*
- 02.12.2010 Borreliosen: neues in der Klinik, Diagnostik und Therapie  
*Guests: Dr P. Oliver, Sion, Professor B. Zelger, Innsbruck*

## Publications 2010

### Original papers (peer-reviewed)

Albinger-Hegyi A, Stoeckli SJ, Schmid S, Storz M, Iotzova G, Pöbst-Hensch NM, Rehrauer H, Tinguely M, Moch H, Hegyi I: Lysyl oxidase expression is an independent marker of prognosis and a predictor of lymph node metastasis in oral and oropharyngeal squamous cell carcinoma. *Int J Cancer*. 2010;126:2653-2662

Barysch MJ, Cozzio A, Kolm I, Höllicka SR, Brand C, Hunger R, Keyden O, Schaffner R, Zaugg T, Dummer R: Internet based health promotion campaign against skin cancer - Results of www.skincheck.ch in Switzerland. *Eur J Dermatol*. 2010;20:109-114

Baumgartner M, Haneke E. Retronychia: Diagnosis and treatment. *Dermatol Surg*. 2010;36:1610-1614

Beltraminelli H, Müllegger R, Cerroni L: Indolent CD8+ lymphoid proliferation of the ear: A phenotypic variant of the small-medium pleomorphic cutaneous T-cell lymphoma? *J Cutan Pathol*. 2010;37:81-84

Cueni LN, Hegyi I, Shin JW, Albinger-Hegyi A, Gruber S, Kunstfeld R, Detmar M: Tumor lymphangiogenesis and metastasis to lymph nodes induced by cancer cell expression of podoplanin. *Am J Pathol*. 2010;177:1004-1016

Darsow U, Wollenberg A, Simon D, Tâieb A, Werfel T, Oranje A, Gelmetti C, Svensson A, Deleuran M, Calza AM, Giusti FLübbe J, Seidenari S, Ring J: ETFAD/EADV eczema task force 2009 position paper on diagnosis and treatment of atopic dermatitis. *J Eur Acad Dermatol Venereol*. 2010;24:317-328

De Carbonnel M, Davis P, Roelfsema MRG, Inoue SI, Schepens I, Lariguet P, Geisler M, Shimazaki KI, Hangarter R, Fankhauser C: The arabidopsis phytochrome kinase substrate 2 protein is a phototropin signaling element that regulates leaf flattening and leaf positioning. *Plant Physiol*. 2010;152:1391-1405

Dieckmann C, Milkova L, Hunziker T, Emmendorffer A, Simon JC: Human melanocytes can be isolated, propagated and expanded from plucked anagen hair follicles. *Exp Dermatol*. 2010;19:543-545

---

Duarte AF, Correia O, Barros AM, Azevedo R, Haneke E: Nail matrix melanoma in situ: Conservative surgical management. *Dermatology*. 2010;220:173-175

---

Goedkoop R, Juliet R, You PHK, Daroczy J, de Roos KP, Lijnen R, Rolland E, Hunziker T: Wound stimulation by growth-arrested human keratinocytes and fibroblasts: HP802-247, a new-generation allogeneic tissue engineering product. *Dermatology*. 2010;220:114-120

---

Heradzadeh A, Killing C, Worm M, Soost S, Simon D, Bauer A, Mahler V, Schuster C, Szöiska C, Frambach Y, Eben R, Werfel T, Uter W, Schnuch A: Quantitative repeated open application testing (ROAT) with a rinse-off product in Methylchloroacetate-sensitive patients – results of the IVD. *Contact Dermatitis*. 2010;62:330-337

---

Irla N, Schneiter T, Haneke E, Yawalkar N: Successful treatment with etanercept. *Dermatology*. 2010;21;2:173-176

---

Keller B, Braathen LR, Marti HP, Hunger RE: Skin cancers in renal transplant recipients: A description of the renal transplant cohort in Bern. *Swiss Med Wkly*. 2010;1-8

---

Koenen W, Haneke E, Schmieder A, Felcht M, Goedt S, Faulhaber J: Temporärer Nagelersatz aus Spritzenkörpern. *J Dtsch Dermatol Ges*. 2010;8:63-64

---

Lebeau S, Müller R, Masouyé I, Hertl M, Borradori L: Pemphigus herpetiformis: analysis of the autoantibody profile during the disease course with changes in the clinical phenotype. *Clin Exp Dermatol*. 2010;35:366-372

---

Nagel A, Lang A, Engel D, Podstawa E, Hunzelmann N, de Pita O, Borradori L, Uter W, Hertl M: Clinical activity of pemphigus vulgaris relates to IgE autoantibodies against desmoglein 3. *Clin Immunol*. 2010;134:320-330

Ortega-Zilic N, Hunziker T, Luchli S, Mayer DO, Huber C, Baumann Conzett K, Sippel K, Borradori L, Fench LE, Hafner J. EpiDex® Swiss field trial 2004-2008. *Dermatology*. 2010;221:365-372

---

Parmentier L, Durr C, Vassella E, Beltraminelli H, Borradori L, Haneke E: Nail alterations in cutaneous T cell lymphoma: successful treatment of specific nail infiltration with topical mechlorethamine only. *Arch Dermatol*. 2010;146:1287-91

---

Parmentier L, Tomlinson I, Happle R, Borradori L: Evidence for a new fumarate hydratase gene mutation in a unilateral type 2 segmental leiomyomatosis. *Dermatology*. 2010;221:149-153

---

Pelivani N, Houriet C, Haneke E: Tichilemmal cyst nevus with a sebaceous nevus component. *Dermatology* 2010;221:289-91

---

Ramelet AA, Parmentier L: Nicolaus livedoid dermatitis after ultrasound-guided sclerotherapy. *Dermatol Surg*. 2010; 36:155-158

---

Schepens I, Jaunin F, Begre N, Laderach U, Marcus K, Hashimoto T, Favre B, Borradori L: The protease inhibitor alpha-2-macroglobulin-like-1 is the p170 antigen recognized by paraneoplastic pemphigus autoantibodies in human. *PLoS One*. 2010;18;5:e12250

---

Schlapbach C, Ochsenbein A, Kaelin U, Hassan AS, Hunger RE, Xwalkar N: High numbers of DC-SIGN+ dendritic cells in lesional skin of cutaneous T-cell lymphoma. *J Am Acad Dermatol*. 2010;62:995-1004

---

Signorell J, Hunziker T, Martinelli M, Koestner SC, Mohacs PJ: Recurrent non-melanoma skin cancer: remission of field cancerization after conversion from calcineurin inhibitor- to proliferation signal inhibitor-based immunosuppression in a cardiac transplant recipient. *Transpl P*. 2010;42:3871-3875

---

Simon D, Wardlaw A, Rothenberg ME: Organ-specific eosinophilic disorders of the skin, lung, and gastrointestinal tract. *J Allergy Clin Immunol*. 2010;126:3-13

---

Skaria AM: Recurrence of basosquamous carcinoma after Mohs micrographic surgery. *Dermatology*. 2010;221:352-355

Skaria AM: Staged surgical therapy of basal cell carcinoma in the head and neck region. *Swiss Med Wkly*. 2010;140:31-32

---

Steiner-Champlaud MF, Schneider Y, Favre B, Paulhe F, Praetzel-Wunder S, Faulkner G, Konieczny P, Raith M, Wiche G, Adebola A, Liem RK, Langbein L, Sonnenberg A, Fontao L, Borradori L: BPA1 isoform-b: complex distribution pattern in striated and heart muscle and association with plectin and alpha-actinin. *Exp Cell Res*. 2010;1;316:297-313

---

Tang H, Schlapbach C, Hassan AS, Simon D, Yawalkar N: Characterization of dendritic cells and macrophages in irritant contact dermatitis. *J Dermatol Sci*. 2010;57:216-218

---

Tedelind S, Poliakova K, Valeta A, Hunegnaw R, Yemanaberhan EL, Heldin NE, Kurebayashi J, Weber E, Kopitarjerala N, Türk B, Bogyo M, Brix K: Nuclear cysteine cathepsin variants in thyroid carcinoma cells. *Biol Chem*. 2010; 391:923-935

---

Zawodniak A, Lochmatter P, Yerly D, Kawabata T, Lerch M, Yawalkar N, Pichler WJ: In vitro detection of cytotoxic T and NK cells in peripheral blood of patients with various drug-induced skin diseases. *Allergy*. 2010;65:376-384

## Editorial

(peereviewed journals)

Borradori L, Getsios S, Waschke J, Hertl M, Müller EJ: From cell signaling to novel therapeutic concepts: international pemphigus meeting on advances in pemphigus research and therapy. *J Invest Dermatol*. 2010;130:1764-1768

---

Lipsker D, Borradori L: Bullous pemphigoid: what are you? Urgent need of definitions and diagnostic criteria. *Dermatology*. 2010;221:131-134

---

Schneiter T, Hunziker T: Limb salvage – at which costs, which risks? *Dermatology*. 2010;222:20-21

---

Von Felbert V, Hunziker T: Acrodermatitis enteropathica-like skin lesions due to Crohn's disease-associated zinc deficiency. *Hautarzt*. 2010;61:927-929

## Non peer reviewed articles

Baumgartner M: Hautveränderungen bei Niereninsuffizienz: *Dermatologie Praxis* 2010;1

---

Bornstein MM, Reichart PA, Borradori L, Beltraminelli H: Der orale Lichen planus (Teil 1: Klinik der Haut- und Schleimhauteffloreszenzen). *Quintessenz*. 2010;61:15-20

---

Bornstein MM, Reichart PA, Borradori L, Beltraminelli H: Der orale Lichen planus (Teil 2: Therapie, Nachsorge und maligne Transformation). *Quintessenz*. 2010;61:149-155

---

Chavaillaz O, Borradori L, Haneke E: Subungual epidermoid cyst: Report of a case with rapid growth and nail loss mimicking a malignant tumor *J Clin Dermatol*. 2010;1

---

Fritz K: Vergleich eines Hyaluronsäure-Dextranomer-Fillers mit einem etablierten Hyaluronsäurepräparat. *Kosmetische Medizin*. 2010;31:94

---

Hafner J, Mayer D, Amann B, Fench L, Läuchli S, Hofer T, Ramelet A, Jeanneret C: Chronische venöse Insuffizienz bei postthrombotischem Syndrom und Varikose. *Praxis*. 2010;99:1631-1637

---

Haneke E: Ästhetische Nagelchirurgie. *Haut*. 2010;3:106-110

---

Haneke E: Onychomadesis and hand, foot and mouth disease – is there a connection? *Eurosurveillance*. 2010;15:19

---

Hertl M, Niedermeier A, Borradori L: Autoimmune bullous skin disorders. *Ther Umsch*. 2010;67:465-482

---

Irla N: «What is psoriasis?» *Newsletter Firma Leo*. 2010

---

Kunzi-Rapp, Fritz K, Steinert M: Radiale Stosswellentherapie (RWTH) bei Cellulite. *Kosmetische Medizin*. 2010;4:194-197

---

Lapointe AK, Hofbauer G, Anliker M, Arnold A, Binet I, Hunger R, Kempf W, Pascual M, Pelloni F, Serra A, Laffitte E: Swiss clinical practice guidelines for skin cancer in organ transplant recipients. *Rev Med Suisse*. 2010;28;6:854-859

Pelivani N, de Viragh PA, Hunziker T: Tricho-rhino-phalangeales Syndrom. *Fragen und Antworten aus der Praxis* 2010;7:110

---

Ramelet AA: Dermatophlébologie. *Nouv Dermatol.* 2010;29:70-71

---

Yawalkar N: Interview *Ars Medici* 9/2010: Viele Patienten werden unter Biologics weitgehend symptomfrei. Biologika bei Psoriasis. *Hautsache.* 2010;05

## Book chapters – books

Baran R, Hay R, Haneke E, Tosti A. Ονυχομυκητίαση. Taylor & Francis 2010; Potonta, Thessaloniki

---

Fritz K: Endokrinologische Aspekte der Hautalterung In: Krutmann, Diepgen (eds). *Anti Ageing.* Neuauflage 2010

---

Haneke E: Lasers and other light sources. In: Cantisano-Zilkha M, Haddad A (eds). *Aesthetic Oculofacial Rejuvenation.* Saunders Elsevier 2010:39-55

---

Haneke E: Nail surgery. In: Robinson JK, Hanke CW, Siegel DM, Fratila A (eds). *Surgery of the skin*, 2nd Ed. Mosby Elsevier Edinburgh 2010:755-780

---

Haneke E: Photodynamic therapy. In: Cantisano-Zilkha M, Haddad A (eds). *Aesthetic Oculofacial Rejuvenation.* Saunders Elsevier 2010:57-65

---

Haneke E: Skincare. In: Cantisano-Zilkha M, Haddad A (eds). *Aesthetic Oculofacial Rejuvenation.* Saunders Elsevier 2010:21-28

---

Hegyí I, Zelger B: In: Böcker W, Denk H, Heitz PhU (eds), *Haut: «Pathologie»*, Kapitel 4, 5. Auflage, Elsevier 2010

---

Hunger RE, Kernland Lang K, Braathen LR: Photodynamische Therapie. In: Szeimies RM (ed), *Tumoren der Haut.* Stuttgart, New York. Georg Thieme Verlag 2010;159-164

---

Parsi K, Zimmet S, Allegra C, Began J, Gasparis AP, Labropoulos N, Lee BB, Malouf GM, Partsch H, Rabe E, Ramelet AA, Schadeck M, W F: Phlebology training curriculum. A consensus document of the International Union of Phlebology. In: *Int Angiol* 2010;29:533-559

Pelivani N: Die Häufigste Haarerkrankungen bei Kindern (Wenn der Teddybär bei der Diagnose hilft). In: Spechsstunde, Zeitung für Patienten, Ausgabe 4, 2010

---

Pelivani N: Tricho-rhino-phalangeales Syndrom (Buch Fragen und Antworten aus der Praxis). In: Hans Marseille Verlag München, 2010

---

Ramelet A, Blazek C: Venenerkrankungen. In: Plewig G, Wolff HH, Burgdorf W, Landthaler M (eds), Braun-Falco. Elsevier Saunders, 2010

---

Ramelet AA: Ambulatory Phlebectomy. In: Alam M, Silapunt S (eds). Treatment of Leg Veins. 2nd ed. Procedures in Dermatology series. Elsevier Saunders, 2010

---

Ramelet A-A: Phlébologie esthétique. Télangiectasies: Possibilités thérapeutiques. In: Cosmétologie et dermatologie esthétique. Elsevier Masson SAS, Paris 2010, vol 50-470-C-10

---

Ramelet A-A: Phlébologie esthétique. Varices tronculaires et réticulaires. In: Cosmétologie et dermatologie esthétique. Elsevier Masson SAS  
Richert B, DiChiacchio N, Haneke E: Nail Sugery. Informa healthcare, London, 2010

---

Simon D, Durrer B, Lübke J: Neurodermitis – Ein Leitfaden für Aerzte und Patienten. UNI-MED, Bremen, 2010

---

Simon D, Simon HU: Eosinophils in autoimmune bullous diseases. In: M. Hertl (ed), Autoimmune skin diseases, 3d edition, Springer Wen New York, 2010:505-515

## Honors and prizes

Dr K. Fritz: Associate University Professor (invited), Universität für Medizin Pharmazie Carol Davila Bukarest. Anerkennung dieses Titels durch das Ministerium für Kultur und Wissenschaft des Bundeslandes Rheinland-Pfalz in Mainz (D), 28.09.2010

---

Dr K. Fritz: Ernennung zum Visiting Professor, Universität Sofia, 8.12.2010

Dr H. Beltraminelli: Prix international Jean Civatte, Journées Dermatologiques de Paris, Paris, 7.-11.12.2010

---

Dr C. Schlapbach: Posterpreis: «NK cells and cytotoxic T cells express granulysin in multiple cutaneous drug reactions». Jahresversammlung der Schweizerischen Gesellschaft für Allergologie und Immunologie, St. Gallen, 15.-16.04.2010

---

Dr K. Kernland: Posterpreis Schweizerische Gesellschaft für Dermatologie und Venereologie, Zürich, 26.-27.08.2010

---

Dr I. Schepens: Berner Immunology Club Price for the best article in 2010: Schepens I, Jaunin F, Begre N, Läderach U, Marcus K, Hashimoto T, Favre B, Borradori L. PLoS One. 2010 Aug 18;5:e12250

## Grants

Professor D. Simon: DNA-containing extracellular structures in eosinophilic diseases. S.T. Johnson Stiftung Bern

---

Professor N. Yawalkar: Characterization of the in situ inflammatory infiltrate in palmo-plantar psoriasis treated with alitretinoin. Basilea

## Guest doctors

Savas Yayli, MD, Assistant Professor, Karadeniz Technical University, Department of Dermatology, Trabzon, Türkei (2 Monate)

---

Haur Yueh Lee, MD, Registrar, Dermatology Unit, Singapore General Hospital / National Skin Centre, Singapore (6 Monate)

---

Chanitwan Treewittayapoom, MD, Aesthetics Center, Kasemrad General Hospital, Bangkok, Thailand Bangladesh (1 Woche)

---

Daniela Gutierrez, MD, Department of Surgical Dermatology, Hospital General «Dr Manuel Gea González», Mexico

## Sponsors

**Gold** Biotest(Schweiz) AG  
LEO Pharmaceutical Products Sarath Ltd.  
CSL Behring AG

**Silver** Almirall AG  
Astellas Pharma AG  
Basilea Pharmaceutica AG  
Galderma SA  
Janssen Cilag AG  
Meda Pharma AG  
Pfizer

**Bronze** Dermapharm AG  
Essex Chemie AG  
Merz Pharma AG  
Spirig Pharma AG  
UCB Pharma Schweiz AG

**Further Sponsors** AllergyCare AG  
Baxter Schweiz AG  
Ganzoni & Cie AG  
La Roche-Posay; Cosmetique Active(Suisse) SA  
Lasermid AG  
Louis Widmer AG  
Merck(Schweiz) AG  
Permamed  
Qualicare AG

## Consultants and lectors

**Dr M. Adatto**  
(Laser)



**Dr A.-A. Ramelet**  
(Phlebology)



**Dr P. de Viragh**  
(Trichology)



**Dr A. Skaria**  
(Mohs-Surgery)



**Dr K. Fritz**  
(Laser)



**Professor E. Haneke**  
(Nail diseases)



**Dr H. Nievergelt**  
(Histopathology)









## **Inselspital**

Universitätsklinik für Dermatologie

CH-3010 Bern

Tel. +41 (0)31 632 22 88

[www.insel.ch](http://www.insel.ch)

[www.dermatologie.insel.ch](http://www.dermatologie.insel.ch)



UNIVERSITÄTSSPITAL BERN  
HOPITAL UNIVERSITAIRE DE BERNE  
BERN UNIVERSITY HOSPITAL