Dear colleagues and friends,

The University ENT Department is an internationally recognised centre of competence for diagnosis, treatment and research in diseases of the head and neck. It collaborates closely with the Institute for Surgical Technology and Biomechanics and the ARTORG Center of the University of Bern. The research priorities are computer-supported surgery and the highly specialised field of cochlea implantation (CI) in cases of severe hearing difficulties. Bern’s CI robotics project was awarded a prize by the Commission for Technology and Innovation (CTI). The «direct acoustic cochlear stimulation» implantable hearing device, initially developed in Bern, has been further developed and used in international studies.

Despite extensive building alterations made to the ENT operating theatres, patients received top quality care at all times. In addition to the new theatres, a multimedia operating room was fitted out for use for training and for minimally invasive endoscopy and microscopy surgery.

The autumn saw the launch of the «singing voice» interdisciplinary course leading to a Certificate of Advanced Studies (CAS) in cooperation with the Music Department of the Bern University of the Arts. The aim of the CAS – which is unique in German-speaking Europe – is to provide the best possible support for professional singers from the point of view of teaching, therapy and medical treatment. The interdisciplinary project to assess the family–dynamic aspects of stuttering was completed; this succeeded in placing the fluency disorder «stuttering» in the context of a communication disorder within the family.

Alongside numerous scientific publications, the publication of a book on bone-anchored hearing aids was a highlight of 2011.

I hope this brochure will give you an interesting insight into our clinic and the fascinating subject of ENT medicine. My warmest thanks to the entire ENT team.

Best wishes,

Prof. M. Caversaccio
Clinic director
Staff

Clinic Management
Prof. M. Caversaccio  Director and Chairman
Prof. P. Zbären  Co-Chairman
Prof. M. Kompis  Head of Audiology
Prof. E. Seifert  Head of Phoniatrics
Ms R. Sollberger  Head of Nursing
Mr B. Werle  Head of Theatre Nursing
Senior Registrars
Prof D. Vibert Head of Otoneurology
Dr A. Arnold
Dr U. Borner as of 01.10.2011
Dr P. Dubach
Dr M. Hagemann until 31.03.2011
Dr S. Heimgartner until 30.09.2011
Dr B. Landis
Dr G. Mantokoudis until 30.09.2011
Dr P. Schmid until 31.12.2011
Dr J. Schüpbach until 31.12.2011
Dr P. Senn
Dr K. Strub Deputy Consultant Audiology

Consultants
Dr F. Schönenberger Manual Medicine
Dr M. Vischer Cochlea Implantation

ARTORG-Professur
Prof C. Stieger Artificial Hearing
Departments and Units

**Organisational units**

Audiology  Head: Prof M. Kompis
In-patient ward  Head: Ms R. Sollberger
CI service  Head: Dr P. Senn
ENT surgical ward  Head: Mr B. Werle
Otoneurology  Head: Prof D. Vibert
Phoniatrie  Head: Prof E. Seifert
Out-patients  Head: Dr S. Heimgartner to 30.04.2011
Dr P. Dubach as of 01.05.2011
Tumour surgery  Head: Prof P. Zbären

**Consultations**

Manual medicine  Prof E. Seifert, Dr F. Schönenberger
Disorders of smell and taste  Dr B. Landis, Dr P. Dubach,
Prof M. Caversaccio
Otology  Dr P. Senn, Prof M. Caversaccio
Otoneurology  Prof D. Vibert
Paediatric audiology  Dr K. Strub
Rhinology  Dr B. Landis, Dr P. Dubach,
Prof M. Caversaccio
Sleep and snoring  Dr P. Schmid
Tinnitus  Dr G. Mantokoudis until 31.09.2011
Dr A. Arnold from 01.10.2011
Tumours  Prof P. Zbären, Dr A. Arnold
Tumour board  Prof P. Zbären, Dr A. Arnold
Patient statistics 2011

Out-patient consultations

ENT outpatient department 12 722
Audiology & CI service 4 725
Phoniatrics & logopaedics 4 246
Otoneurology 466

Total 22 159

ENT in-patients

Total ENT in-patients and day care 1 412

Patient operations

Elective Patients: Children 183
Elective Patients: Adults 1 146

Out-patients with premedication 33
Out-patients without premedication 152

Emergencies: Children 72
Emergencies: Adults 253

Total patient operations 1 839
Research: Publications 2011

In 2011 numerous scientific studies conducted at the University ENT department at the Inselsspital appeared in leading scientific journals or were presented at international and national congresses. Below is a selection; the complete list is available on the internet at www.hno.insel.ch/Jahresbericht.html

50 scientific publications
Including:
• Senn P, Häusler R, Panosetti E, Caversaccio M. Petrous bone cholesteatoma removal with hearing preservation. Otol Neurotol 2011

Plus another 47 publications (see www.hno.insel.ch/Jahresbericht.html).

1 book

3 patents
• Schütz D, Guenat JM, Stieger C et al: «Implanted Access Port», 2010, WOEP057860, Priority date: 04.06.2011

152 lectures and poster presentations
### Funded by third parties 2011

<table>
<thead>
<tr>
<th>Project name, Leader</th>
<th>Funding source</th>
<th>CHF</th>
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<tr>
<td>High precision robots for implantable hearing devices&lt;br&gt; <em>Caversaccio, Stieger Weber et al.</em></td>
<td>CTI</td>
<td>330 553</td>
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<td>CO-ME Otorhinolaryngology&lt;br&gt; <em>Caversaccio et al.</em></td>
<td>SNSF</td>
<td>217 500</td>
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<tr>
<td>Novel Body Access&lt;br&gt; <em>Stieger, Frey et al.</em>&lt;br&gt;HNO/Nephro</td>
<td>CTI</td>
<td>196 698</td>
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<td>Otolith Function&lt;br&gt; <em>Vibert</em></td>
<td>Carigest</td>
<td>120 000</td>
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<td>Innovative Operating Theatre&lt;br&gt; <em>Caversaccio</em></td>
<td>SNSF</td>
<td>50 000</td>
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<td>Cochlear Microendoscopy&lt;br&gt; <em>Huth</em></td>
<td>SNSF</td>
<td>37 000</td>
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<td>Future Vertigo Assessment&lt;br&gt; <em>Mantokoudis</em></td>
<td>SNSF</td>
<td>10 000</td>
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<td>BAHA&lt;br&gt; <em>Kompis</em></td>
<td>Cochlear AG</td>
<td>18 600</td>
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<td>Ear stem cells&lt;br&gt; <em>Senn</em>&lt;br&gt; Stiftung für Hörgeschädigte</td>
<td>Medel GmbH</td>
<td>20 000</td>
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<td>VoIP Internet Telephony&lt;br&gt; <em>Mantokoudis, Senn et al.</em></td>
<td>Cochlear AG</td>
<td>20 000</td>
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<td>Intraoperative Test System&lt;br&gt; <em>Stieger et al.</em></td>
<td>Cochlear AG</td>
<td>14 600</td>
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<td>Miscellaneous Contributions</td>
<td>Various</td>
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<td><strong>Total</strong></td>
<td><strong>Total</strong></td>
<td><strong>1 048 851</strong></td>
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Prizes and other distinctions

  Best Poster Award, CTI Medtech Event 2011, Bern 23.08.2011 for the poster: High-Precision Robot for Implantable Hearing Systems

- Stieger C: CTI Medtech Award 2nd rank, nominated out of 50 projects, «Novel Body Access», Bern 23.08.2011

Scientific collaborations

- ARTORG Center of the University of Bern and University Hospital (Inselspital) (www.artorg.unibe.ch)
- Computer-aided and image-guided medical interventions (www.co-me.ch), National Center of Competence in Research of the Swiss National Science Foundation
- University clinic for nephrology and hypertonia, Inselspital Bern
- Bern University of Applied Sciences, Engineering and Information Technology, Burgdorf, Department of Electrical Engineering
- Bern University of the Arts, Music Department
Teaching

Lectures and courses at the University of Bern

- Introductory course, Masters in Human Medicine, ENT lectures, 4th year medicine (Prof M. Caversaccio with other lecturers)
- Final course 1, ENT lecture and clinical training, 5th year, (Prof M. Caversaccio with other lecturers)
- Lecture on biomedical acoustics (Prof M. Kompis, Prof C. Stieger)
- Clinical skills, physical examinations, 3rd year (Dr P. Schär, Dr S. Negri, Dr J. Jermini, Dr B. Greusing)
- ENT lectures for students of dentistry (Prof M. Caversaccio with other lecturers)
- Elective internships for 1st and 2nd year students: (Sonography, Prof E. Seifert; Otoacoustic emissions, Prof M. Kompis; Brainstem audiometry, Dr M. Vischer)
- Lectures for Masters course in biomedical engineering (Prof M. Caversaccio with other lecturers)
- Station designers and expert examiners for university and federal ENT OSCE examinations HNO (Prof E. Seifert with other lecturers)
Lectures and courses at other universities

- University of Fribourg, Faculty of Arts and Humanities, Institute of Special Education: Audiology for speech therapy students (Prof M. Kompis)
- University of Fribourg, Faculty of Arts and Humanities, Institute of Special Education: Phoniatrics I for speech therapy students (Prof E. Seifert)
- University of Fribourg, Faculty of Arts and Humanities, Institute of Special Education, Fluency disorders for speech therapy students (A. Zimmermann)
- University of Fribourg, Faculty of Arts and Humanities, Institute of Special Education: Voice disorders and disorders in voice quality, for speech therapy students (Speech therapy team)
- Lucerne University of Applied Sciences and Arts: Music department: The voice phenomenon – physiology and development (Prof E. Seifert)
- Bern University of Teacher Education (PH): Vox adolescentis: Physiology and development of the voice (Prof E. Seifert)
- University of Neuchâtel, Faculty of Arts and Humanities; Speech-Language Pathology Teaching and Research Unit: Audiology I: Anatomy, Physiology, Embryology, Phylogenetics, Acoustics (Prof D. Vibert)
- University of Fribourg, Physiology Unit: APP seminar «Sleep apnoea», 3 lessons for 2nd year students of human medicine (Dr M. Vischer)
- Bern University of Applied Sciences, MedInf Medtec Masters course: Implantable hearing devices (Prof C. Stieger, Dr P. Senn)
- Advanced course at the for teachers of singing and voice therapists at the Music Department of the Bern University of the Arts in cooperation with the Inselspital, Bern: Singing voice CAS – recognising, alleviating, avoiding dysfunctions. (Prof E. Seifert with other lecturers)
- Thurgau University of Applied Sciences, Kreuzlingen; Lecture for state qualified speech therapists: The stuttering child at school (A. Zimmermann)
Advanced training events

• 29.01.2011  Infections and complications in the ENT area in children: Update 2011, University Departments of ENT and Paediatrics, Inselspital Bern

• 24.02.2011  Audiometry course, Module 1 (Prof M. Kompis)

• 31.03.2011  Otology update


• 02.05.2011  Cochlear research meeting – University of Bern: «DACS activities at the University of Bern» (Prof C. Stieger)

• 16.05.2011  «CAS Course» for future engineers at the Master’s course of the University of Bern with ARTORG and BrainLAB (Organiser and course leader: Dr P. Dubach)

• 20.05.2011 - Stuttering in Children: the Bern model
  21.05.2011  (phoniatrics)

• 26.05.2011  3rd Baha Specialist Roundtable, ARTORG Center Bern

• 29.08.2011 - Otological microsurgery course with emphasis on minimally invasive techniques (Organiser: Prof M. Caversaccio)
  31.08.2011

• 02.09.2011 - Advanced training for speech therapists, teachers of singing
  03.09.2011  and other voice-connected professions:
  AAP (Phonation adapted to the breathing rhythm)
  Lecturer: Uwe Schürmann, Inselspital Bern (I. Schaller Gilg)

• 08.09.2011 - Endoscopic Course for Paranasal Sinus and Skull Base Surgery
  10.09.2011  (Organiser: Prof M. Caversaccio)

• 16.09.2011  Visit by Swiss Association of Science Journalism:
  «Implantable Hearing Devices» (Prof C. Stieger)

• 08.12.2011  «The olfactory cleft and its pathologies – A rising star in rhinology» (Dr B. Landis)

• 16.12.2011  Farewell symposium in honor of Prof P. Zbären

• 22.12.2011  Visit to the ENT clinic by the Bernese cantonal government

• Monthly meeting on mortality and morbidity of the University of Bern ENT Department (Dr A. Arnold)
Nursing care in in-patient wards and the out-patient setting

2011 was a year of preparation both for new systems and for short training courses. Easy-learn courses to introduce i-pdos (electronic patient data gathering) and tacs (to record nursing activities) started in autumn. Easy-learn was also used to train nursing staff about the new system of DRG (diagnosis related groups) flat rates per case.

Back-up research on DRG was conducted here as well. We introduced nursing rounds in the clinics, which demonstrably boosted cooperation both within and between professions.

The patients also greatly appreciate the rounds. In cooperation with the Quality department we introduced identification armbands to improve patient security. To avoid postoperative nausea and vomiting, we have started using acupressure armbands.

Ms R. Sollberger
Operating Team

2011 was to a considerable extent dominated by the planning and implementation of building alterations to the Ear Nose and Throat operating theatres. Our operating rooms were completely refurbished between the end of May and the middle of September. The alterations were completed within the planned time frame. The operating team faced a huge logistics challenge. At times we were operating at up to 5 different locations at once.

Thanks to careful planning we were able to relocate most of our operations to the gynaecology department, the hand surgery operating theatres and the paediatrics department. On occasion we also used the operating areas in the neurosurgery department and in the ophthalmic clinic.

Great demands were placed on us to have all the necessary instruments ready at the right time in the right place. This repeatedly pushed our team to its limits. Here we would like to express our heartfelt thanks to all of those who gave us their energetic support at this time. We must thank especially the operating teams of the other departments of the Inselspital and the central sterilisation department. Thanks to their great dedication it was even possible to operate on significantly more patients than originally planned during the rebuilding period.

ENT/CMR theatre team
Mr B. Werle
Mr T. Hofmann
Smell and Taste Outpatient Clinic

Dr B. Landis, Dr P. Dubach, Dr H. Friedrich

Smell and taste disorders are widespread, with approximately 5% of the population thought to be sufferers. Unfortunately in most patients the disorders remain untreated because there is a lack of comprehensive and easily available information about them.

The goal of our smell and taste outpatient clinic is to provide a comprehensive assessment of patients suffering from smell or taste disorders. In addition to a thorough ENT examination we perform extensive olfactory and gustatory examinations and tests. We not only establish a diagnosis, but we provide follow-up and treatment for patients with olfactory and gustatory disorders.

A second important activity of our smell and taste outpatient clinic is research. Alongside clinical studies on how to cure olfactory and gustatory disorders, our laboratory also focuses on research into the use of electrophysiology to provide objective measurements of olfactory and gustatory disorders. The aim is to be able to better locate the disorders through evoked responses and electroencephalography.

Patients contact: ENT outpatients (no referral needed)
Contact

Administration of the University Department of ENT

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Director and Chairman

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