



Annual Report

Transplant Centre
University Hospital
Zurich

2013

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1. The Transplant Centre in its 6th year

Nicolas Müller – Head of the TPLZ board committee

With the autumn symposium 2013 the Transplant Centre concludes the 6th year of common activities since its foundation. Some key aspects of this year shall be referred to here and will be further emphasized in the subsequent annual report, which has been elaborated in cooperation with all members of the board committee.

1.1. Retrospect

Important events

The long expected decision for heart transplantation within the scope of the intercantonal agreement on highly specialized medicine (IVHSM) has determined that the three national programs in Lausanne, Bern and Zurich will continue the heart transplantation. This decision allows a long-term planning of the individual activities for each centre. An essential basis of the decision is the postulation that heart transplantations should not be considered isolated but as continuum in the treatment of cardiac insufficiency. With the foundation of the Zurich Heart Centre the integration is fulfilled exemplarily, as the entire heart care is organized under one common roof.

For the first time the results after transplantation have been published jointly with all the other centres in Switzerland this year. The Zurich Centre had already met this obligation of publication stipulated by law and the bylaws of transplant medicine in its quality reports in the recent years. The report can be found as Annual Report 2013 on www.stcs.ch under the heading Publications. We therefore will not continue to publish separate outcome data in this report from now on, as all relevant information can be found in the joint report.

A profound change in our Centre in the reporting year was the appointment of Thomas Fehr as Director of the Medical Clinic of the Cantonal Hospital Graubünden and thus his resignation from the function of coordinator of the TPLZ. Thomas Fehr has had a considerable impact on the recent years and has initiated and accompanied many developments. His comprehensive knowledge of all fields of transplantation has been an enormous benefit for the centre; he has promoted the matter of transplantation at the USZ in a determined and persistent way and has bestowed a face upon it. The board committee as well as the board of directors would like to thank him at this point for his unremitting commitment. The bestowal of the merit award on the occasion of the autumn symposium has been a worthy acknowledgement of his immense merits!

Transplant activities

Transplant activities of all programs could be maintained on a good level in 2013. The exact numbers of the individual programs are specified in attachment 6 of this report.

The following milestones are mentioned specifically:

- Since the resumption of DCD donors in 2011 the program could be further expanded. In 2013 6 kidneys, 9 livers and also 5 lungs of DCD donors could be transplanted. The livers and lungs have all been transplanted locally for the time being, while in the case of kidney transplantation the allocation takes place nationally by now.
- In the kidney program one further triple-crossover transplantation could be performed in collaboration with the University Hospital of Geneva. In a very informative article in a public newspaper (research insert NZZ am Sonntag) the concept has been presented to the general public.
- In the field of diabetes mellitus type 1 the programs for pancreas and islet transplantation have been continued and 3 pancreata have been transplanted alone without kidney in 2013.
- Likewise stem cell transplantation (allogeneic and autologous) could be continued on a high level, so that Zurich has definitely established itself as the largest stem cell transplant centre of Switzerland. With regard to allogeneic transplants an increasing tendency towards non-related donations can be observed.
- New members of the board of directors are: PD Dr. Jan Plock (reconstructive transplantation), PD Dr. Thomas Kuntzen (liver) and Prof. Dr. Thomas Müller (kidney).

Structural issues

The separation of the organ donation process from recipient issues initiated in 2012 has proved extraordinarily successful. The new "network coordination", which has been put under the direct control of the medical director of the organ donation network and at present is allotted a job contingent of 300%, has been able to recruit the record number of 24 donors in 2013. Supported by its own internet presence (www.dca.ch; Donor Care Association) and an enormous personal commitment the 24 partner hospitals are being attended to day and night.

Continuing education

The continuing education activities of the TPLZ in 2013 were marked by 2 symposia:

- The traditional international autumn symposium on the topic „The immunized recipient“. Notable national and international referees presented a variety of aspects on a problem which is gaining increasing importance beyond kidney transplantation. Andrew Bushell from Oxford gave an introduction to the topic, followed by Jean Villard (Geneva) and Thomas Fehr. Organ specific aspects were made accessible to an interested audience by Andreas Zuckermann from Vienna (lung and heart), Thomas Müller (kidney), Jean-Marie Tiercy (Geneva) and Susan Fuggle from Oxford (pancreas). The afternoon was concluded with a round-table discussion.
- The monthly seminar "Hot Topics in Transplantation" was again able to recruit an interesting mixture of internal and external referees. Highlight from a transplantation-political point of view was the speech of Council of States Felix Gutzwiller on the topic "Consent versus contradiction solution for organ donation - the politician's point of view".

1.2. Outlook

Staff changes

In the Transplant Centre Dr. Erik Schadde and PD Dr. Jens Brockmann (kidney and pancreas transplant program) will leave the USZ for new challenges.

Projects in 2014

- Anniversary year 2014: On December 17, 1964 the first transplantation was conducted at the USZ (kidney). In 1954 the first successful organ transplantation worldwide was conducted (USA, Boston, Dr. Murray). In 2014 there will be 50 years of successful transplantation at the USZ.
- Therefore, also in the context of the current campaign, there would be a unique possibility to promote transplantation as one of the outstanding medical competences of the USZ. Transplantation is the discipline which distinguishes us from all the other local and regional hospitals, while most of the other services are also offered outside of the USZ. Transplantation is a team effort where many different bearers at the USZ are involved, and it is also expression of innovation and research.
- Transplantation can serve as an example for the documentation of complexity and cooperation, always with the objective of optimal patient care.
- Under the main topic "50 years of organ transplantation at the USZ" it is planned to organize a series of activities also for the general public.

2. Centre specific and integrative functions

2.1. Transplant coordination

Werner Naumer – Head transplantation coordination

In 2013 the following donor evaluations have been made by the transplant coordination:

- Living donor kidney donation: 37
- Living donor liver donation: stage I: 6, stage II: 3
- Liver evaluations: 54
- Admission to the waiting list: 296 recipients

Coordination hours: 1200 hours

Foreign offers in total: 101

Coordinated organs: 186

The coordination of an organ donor is a huge expenditure from a logistic point of view within a time period of 24 – 30 hours.

Aufnahme Warteliste durch Team TPL-Koordination 2013

Herz	15	
Herz + Niere	0	
Lunge	28	
Warteliste Lebertransplantation	78	
<i>SU-Warteliste SWTR Lebertransplantationen (von den 78 WL-Pat.)</i>		9
Dünndarm	2	
Pankreas + Niere	16	
Pankreas	3	
Inselzellen	2	
Inselzellen + Nieren	1	
Leber + Niere	3	
Niere	98	
Total	246	9

Organ related colloquia (heart, lung, liver, kidney), in which we take part and keep the records, take place weekly.

The evaluations for living donor kidney donation have become more complex and time consuming. Moreover the kidney and pancreas waiting list has almost doubled with currently more than 300 recipients on the waiting list at the USZ. This means that we have to keep in close contact with the referring physicians (ca. 60 nephrologists) in order to guarantee that all recipients are clinically well evaluated and that all findings are kept up-to-date.

In order to maintain a good collaboration a meeting with referring physicians is organized annually in cooperation with the Clinic of Nephrology.

In addition information evenings for the recipients on the kidney waiting list take place regularly in order to keep in touch with the recipients. These are well attended with sometimes up to 100 participants. Since we further consider a good collaboration with the Canton of Ticino as important, referral meetings and information evenings are organized in Lugano as well.

2.2. Interdisciplinary HLA typing laboratory

Barbara Rüsi – Head interdisciplinary HLA typing laboratory

2.2.1. Staff

The succession of Prof. Dr. Thomas Fehr (director HLA typing laboratory) could be settled. PD Dr. Urs Schanz is taking over the direction of the HLA laboratory on an interim basis. Dr. Stephan Regensass is assuming the co-direction with the objective to obtain the ESHI diploma (European Specialisation in Histocompatibility & Immunogenetics) within 3 years and thereafter to take over the direction of the HLA typing laboratory (50% position).

Since November 1st, 2012 the HLA typing offers a traineeship for biomedical analysts in training. In addition to Mrs Geraldina Lüders also Mrs Zehra Gündüz has completed her professional education as vocational educator with the SVEB certificate (Swiss Federation for Adult Learning).

2.2.2. Implementation of new methods

In stem cell donors the validation of the HLA typing by means of buccal swaps instead of blood withdrawal has been successfully implemented. Especially in the case of donors living abroad this method facilitates the sampling and shipping of samples.

2.2.3. Numbers

Compared to 2012 an increase of sample receipts of 14% has been registered (from 3966 receipts in 2012 to 4542 receipts in 2013).

Compared to 463 LabScreen Single Ag class I and 400 Single II analyse prescriptions in 2012, the prescriptions in 2013 increased to 1149 Single Ag I and 1187 Single Ag II.

The reasons for this increase are:

- In patients on the kidney waiting list the allocation of the organs and the monitoring before/after transplantation is practically exclusively based on the results of the Luminex LabScreen Single Ag analyses.
- The monitoring of the anti HLA antibodies in patients on the waiting list for heart- and lung transplantation is equally based on the Luminex analysis.
- The anti HLA antibodies specification with Luminex LabScreen Single Ag is now also performed in patients before stem cell transplantation.

2.3. Research in the Transplant Centre

Rolf Graf – research representative

Kidney transplantation

It is still a great problem to estimate the compliance of patients for immune suppressive drugs and to identify those who do not take the drugs on a reliable basis. On the basis of data collections from the Swiss Transplant Cohort Study one parameter, based on day drowsiness, could be validated. By means of another method, an enterally administered medication sensor, it was also tested whether patients take the medicaments according to prescription. The test persons in this study showed a high adherence, although in some studies the test had to be interrupted due to side effects.

In a study on tolerance induction by CD40 blocking experimental animal trials have been presented. The tolerability of this method could be demonstrated in vivo as well as in vitro. In particular a protection of the renal tubular epithelium became evident, which renders this therapy option attractive.

Liver transplantation

To increase the liver donor pool, also marginal organs are evaluated more and more frequently. In order to improve these, studies in rats were performed which demonstrated that by using cold oxygenated perfusion (HOPE) prior to implantation a significant improvement could be achieved. Also well-known long-term injuries of the bile ducts could be minimized. HOPE was also clinically tested in livers of patients after cardiac death. Also in this case an improvement of the donor organ was observed.

In experimental basic research in addition reliable protocols on the evaluation of the liver volume and vascular anatomy in mice could be elaborated. By means of small animal MRI the liver volume before and after resection can be assessed

Heart transplantation

In a large multicentre study in patients on the waiting list for heart transplantation it has been investigated whether a prophylactic implantation of a cardioconverter defibrillator can reduce sudden death. After a statistical analysis it becomes evident that this measure promises an improved survival in secondary as well as in primary implantation.

In order to check the ventricular assist devices VAD before implantation a new function test has been established which simulates by means of computer models blood flow, pressure and volume using a hydraulic simulator. The findings are validated by experimental methods.

Lung transplantation

In the field of basic research experiments in mouse- and pig models have been conducted. Ischemia- and reperfusion injuries could be significantly reduced through the elimination of macrophages in a lung transplantation model. In addition the postoperative course could be improved by reducing the dendritic cells of the donors by expansion of the natural killer cells. Reduction of the tissue injury with aspiration liquid from the stomach is another strategy to prepare marginal organs for transplantation. In an experimental pig model surfactant lavage was used with the result that the recipients showed improved lung- and blood values after transplantation. In the same model donor lungs after cardiac death were stored. In transplantation of organs which had received a lavage the survival proved to be significantly improved. A clinical study on the infection of *Pseudomonas* has investigated whether surgery of the nasal cavities would effect an improvement on the incidence of bacterial infection in lung transplanted patients. Patients with cystic fibrosis have been evaluated. In the treated patients an improved bacterial profile could be observed. In the same context it has been evaluated whether nasal polyps are associated with *Pseudomonas* infection. In fact *Pseudomonas* infection is more frequent after transplantation and proves to be a risk factor for nasal polyps.

Pancreas transplantation

Along with the increase in marginal donor organs due to organ shortage new techniques are tested which decrease the risk in transplantation and therefore offer additional possibilities. In children's organs often technical problems are encountered due the small vascular anastomoses. A simplification of the surgical technique could be achieved by means of an en-bloc transplantation of kidneys and pancreas.

Dermatology

An experimental study in keratinocytes has investigated whether immunosuppression with methyl prednisolon or cyclosporine after transplantation increases the prevalence of skin cancer (squamous cancer). The transcription factors RAGE and NFkB have been activated by incubation with these medicaments in keratinocytes. It has been concluded that a pre-inflammatory reaction of these cells might co-influence the cancer risk.

General

The Swiss Transplantation Cohort has again been used intensively for data evaluation in 2013. In addition there has been a series of publications on the subject of lung/heart transplantation which originate from data out of a separate register.

2.4. Continuing education

Nicolas Müller – member scientific committee TNT

Again the seminar *Hot Topics in Transplantation* has been able to attract notable and internationally renowned referees. This was only possible with the support of a generous sponsoring (Astellas Pharma AG, MSD AG, Novartis Pharma Switzerland AG, Pfizer AG, Sanofi and Roche Pharma (Switzerland) AG), for which we would hereby like to express our sincere thanks!

Martina Sester (Transplant and Infection Immunology, University Clinic of Saarland, Germany) spoke on the quickly developing role of immune diagnosis in tuberculosis. Johannes P. van Hooff (Prof. emer., University Hospital, Maastricht, Netherlands) reported on "Long-acting tacrolimus experiences in kidney and liver transplantation", Michael Hübler (Children Cardiology, University Children Hospital, Zurich) presented the most recent developments in children cardiac failure. Christian van Delden (Geneva) spoke on influenza vaccination in SOT. Gilles Blancho (Clinical nephrology and immunology, CHU Nantes, France) spoke on "Costimulation blockade in solid organ transplantation". Highlight from a transplant-political point of view was the speech of Council of States Felix Gutzwiller on the topic "Consent versus contradiction solution for organ donation - the politician's point of view".

2.5. Swiss Transplant Cohort Study (STCS)

Nicolas Müller – Chairman of the Scientific Committee STCS

The STCS has gone through another important year: In the autumn 2013 the cohort was again judged as worthy of support after a complex evaluation procedure by the Swiss National Science Foundation. The first scientific papers are now published, and in total 61 projects – partly under Zurich guidance, all of them with Zurich participation – are on the way. Zurich is bearing the major burden of the enrolled patients – out of a total of 3482 patients 1255 or 1/3 have been transplanted in the Zurich centre. This is presenting us with a considerable logistic challenge in order to ensure a perfect processing of the samples and the data collection. Our special thanks go to all those who have contributed!

3. Organ donation network

3.1. Organ donation activities 2013

Since separation of the organ donation side from the recipients' side the activities of the Donor Care Association are referred to in a separate report.

4. General care of transplant recipients in the Transplant Centre

4.1. Anaesthesiologic aspects of transplantation

Marco P. Zalunardo

Rolf Schüpbach

4.1.1. Organisation

Due to the increasingly advanced disease burden of the recipients and decreasing donor numbers transplant medicine nowadays represents enormous challenges for the USZ not only with regard to medical, but also organizational demands.

The organizational focus of the Institute for Anaesthesiology in 2013 concentrated on the adherence to appointments and the reduction of waiting periods for the patients in consultant service (listing agreements) by means of illustration and documentation of processes in the clinical information system and improved standardization of pre-evaluations in collaboration with other disciplines such as cardiology and nephrology.

In surgery, the increase of donor numbers in the DCD program (previously NHBD) represents an enormous challenge. The issue is to integrate a complex process (including intensive care medicine and neurology as well as assistance of family members during terminal process) in the daily OP routine. The processes have been specified in several meetings and are continuously improved.

4.1.2. Clinic

The standardization of the anaesthesia procedure elaborated in the previous years and the consequent use of transfusion algorithms in massive transfusion have led to a simplification of processes and to favourable outcome data compared to national and international benchmarks.

In the field of lung transplantation the application of extracorporeal circulation (ECMO) required in 1/3 of all cases has been standardized. In particular the technique of vascular access (cannulation) and the necessary hemodilution during the application of ECMO have been standardized. Thanks to the excellent interdisciplinary collaboration of thoracic and cardiac surgery as well as anaesthesia we can proudly speak of a success story at present.

4.1.3. **Research/Science**

Our retrospective study in lung transplanted patients has demonstrated among other things that a insufficient preoperative right-ventricular function has an adverse effect on the outcome (Impact of preoperative right-ventricular function and platelet transfusion on outcome after lung transplantation European: Journal of Cardio-Thoracic Surgery 39: 538-542). From this finding the idea of a new prospective study has arisen. The primary objective of investigation is to find out whether a therapy of the pulmonary hypertension and thus a prevention or retardation of the right-heart insufficiency has a favourable impact on the outcome. This is another interdisciplinary project with pulmonologists, cardiologists and thoracic surgeons.

4.2. **Nursing care in the Transplant Centre**

Beatrice Biotti – Nurse representative

4.2.1. **Motivational Interviewing**

Consultations and trainings of transplanted patients are standardized by the technique of “motivational interviewing” in order to being able to perform an evaluation of the consultation quality in a second step.

4.2.2. **Advanced Nursing Practice (ANP) „Kidney Transplantation“**

Development of education brochures

The three education brochures were translated and printed in Italian. The translation was financed by Novartis Pharma and part of the print by Astellas Pharma. The titles of the Italian brochures are:

- Informazioni necessarie per la preparazione a un trapianto di rene – Brochure 1
- Informazioni necessarie per il periodo immediatamente successivo al trapianto di rene – Brochure 2
- Informazioni necessarie per la vita dopo un trapianto di rene – Brochure 3

ANP Nursing care consultation

One-time training for all freshly transplanted patients.

201 consultations or trainings and 16 discharge interviews in patients after kidney transplantation have been conducted by the ANP nursing expert. Part of these training- and consultation interviews, which took place within the scope of the study, was conducted telephonically.

Transfer

On August 29 the transfer of 6 young adult persons from the Children’s Hospital to the USZ took place. These were also taken care of within the scope of the ANP nursing consultations.

Program „Transplanted support Transplanted“

On April 17 a further training for the coaches took place which support freshly transplanted patients within the scope of the program “Transplanted support Transplanted”. This second training was conducted by G. Schmid-Mohler and Mrs C. Galfetti. In the course of the year 3 mediations between coaches and freshly transplanted patients took place.

Control study „ANP education program on Health Behaviour“

Additional 20 patients have been included in the study “Impact of an Advanced Nursing Practice Education Program on Weight Gain, Motion Behaviour and Medicament Intake in Patients during the first year after Kidney Transplantation”. By the end of 2013 a total of 30 patients participated in the study.

Peer-reviewed publication

Schmid-Mohler, G., Fehr, T., Witschi, P., Albiez, T., Biotti, B., Spirig, R. (2013).

Development of an evidence based self-management program for patients during the first year after kidney transplantation focused on the prevention of weight gain, motion behaviour and medicament adherence. Pflege, 26(3):191-205.

4.2.3. ANP „Liver transplantation“

Development of education brochure

In 2013 two education brochures for patients and family members have been elaborated:

- Need-to-know for the preparation of liver transplantation
- Need-to-know for the life after liver transplantation

The brochures will be delivered to the patients in the scope of the ANP nursing consultation and the inpatient training.

The selection of the superordinate topics for the brochures was made by means of a literature research, a context analysis as well as the results of a qualitative study from 11 focus group interviews with totally 48 participants (patients, family members and USZ co-workers). The texts of the brochures were written by 28 experts of the respective fields. Currently the draft is in final evaluation with the steering committee.

The printing of the brochures is planned for 2014. The financing will be covered by the USZ, Roche Pharma, Biotest AG and Novartis Pharma.

ANP Nursing consultation liver transplantation

The concept development of the nursing consultation liver transplantation has been completed. In addition to the hitherto existing care supply of the USZ patients and their family members are punctually attended to by the APN liver transplantation. The focus of the nursing consultation is on the following topics:

- Patient and family members education on the subject of liver transplantation
- Support by self-management

The nursing consultation will start as soon as the education brochures are available.

Study „Accompanying evaluation of the nursing consultation liver transplantation“

The implementation of the education brochures and the nursing consultation will be evaluated in a study in the “before-and-after” design. The study protocol has been approved by the Ethics Committee of the canton of Zurich and the “before” rating of the study will take place in March 2014.

4.3. Infectious disease consult service of transplanted patients

Nicolas Müller – Infectious disease specialist

1068 infectious disease consultations including follow-up consultations have been documented in 2013 by our consult service in patients in connection with transplantation. This corresponds to approximately 17% of all infectious disease consultations held at the USZ. This emphasizes the high significance of infectious disease treatment and prevention in recipients of new organs or of stem cells or islets. In addition to this service on call all new patients on the waiting list for kidney, pancreas or islet cells are routinely examined with regard to their serology and past infections. The regular participation in the weekly rounds of stem cell transplanted as well as freshly kidney- or pancreas transplanted patients ensures a continuous attendance and close cooperation. In addition we also hold a round for the liver transplanted patients since 2013. The optimal infectious disease management is also ensured by regular revisions of the different guidelines.

4.4. Dermatological follow-up of transplanted patients

Günther Hofbauer – Dermatology

Recipients of solid organs and of bone marrow/stem cells are seen in the specialized consultation for immune suppressed patients of the Clinic of Dermatology. Under the guidance of Prof. Günther Hofbauer more than 2'100 consultations were held in the year 2013. The main focus of this consultation is on prophylaxis, early detection and treatment of the white skin carcinoma (spinocellular skin carcinoma), which represents the most frequent malignant tumour as consequence of long-term immunosuppression. On the one hand existing tumours are detected and removed within the scope of the pre-transplant assessment. On the other hand transplanted patients are advised of the risk of white skin cancer and are taught prevention by appropriate behaviour, clothing, application of sunscreen and early detection.

Within the scope of a multicentric study we have also learned from our patients that spontaneous pains

of a skin alteration or painfulness to touch indicate a probability of approximately 75% for the presence of a spinocellular skin carcinoma. This study will be published in the American Journal of Transplantation in 2014. These tumours are frequent in transplanted patients and should by all means be removed as long as they are still small. Hence the general recommendation to our patients and co-attending colleagues is to envisage immediate surgical removal in the presence of a painful skin alteration.

4.5. Psychosocial evaluation of transplanted patients

Josef Jenewein – Psychiatry

4.5.1. General retrospect

The psychiatric-psychotherapeutic evaluation of transplant patients, donors and collaborators of the USZ is conducted by the Division of Consultant and Liaison Psychiatry of the Clinic of Psychiatry and Psychotherapy (Direction: Prof. Dr. Josef Jenewein).

The number of psychic evaluations and treatments in patients and donors with altogether more than 1700 consultations (outpatient and inpatient) in 2013 has again increased compared to the previous year. A particular challenge for our team consisted in the attendance of very young male and female patients. To this effect it was and will be necessary to acquire additional knowledge and abilities in the field of child and adolescent psychiatry.

4.5.2. Organization of the team

The team consists currently of three senior physicians with a medical specialty degree in psychiatry and psychotherapy (total job extent 180%) and one psychologist (60%). Our senior physician Dr. Angela Brucher will leave the team much to our regret. Fortunately we have been able to find an adequate substitute as of April 1st, 2014.

4.5.3. Research

The prospective study on psychic organ integration, life quality and psychic stress in patients with lung transplantation has been successfully continued and will presumably be concluded in the middle of 2014. First results demonstrate that lung transplantation leads to a significant improvement of life quality in a majority of patients within 6 months. Though there is a group of approx. 25% in whom no such trend can be observed. This group will now be characterized more precisely and predictive criteria will be sought. These might be of significant clinical relevance in order to being able to better predict a positive outcome in patients with lung transplantation.

5. The individual transplantation programs

5.1. Allogeneic stem cell transplantation

Urs Schanz – Haematology

The allogeneic transplantation activities have been slightly lower with 47 stem cell transplantations compared to the previous year (2012, n=51). This has to be attributed to the cancellation of several transplantations due to relapses at the end of the year. The number of non-related transplantations has been lower with 24 compared to the previous year (n=37), whereas the number of related transplantations was significantly higher with 24 compared to the previous year (n=14). In only approx. 20% (n=10) of all patients a myeloablative conditioning has been used.

The planning of the new 16 beds ward could be concluded. Regretfully the City of Zurich has denied the building license. Unfortunately this is threatening the advancement of the successful allogeneic stem cell transplantation at the Zurich site, which weakens the position of the USZ as the most significant representative of highly specialized medicine in Switzerland.

5.2. Autologous stem cell transplantation

Panagiotis Samaras - Oncology

In collaboration with the City Hospital Triemli 92 patients (compared to 77 patients in 2012) have been treated with high dose chemotherapy and ensuing autologous stem cell retransfusion in the past year. Main indication was multiple myeloma followed by lymphoma. Less frequent indications were acute leukaemia, germ cell tumours and sarcomas. In total 107 aphereses have been conducted in 86 patients (1.24 aphereses per patient). The increase of the number of stored unused preparations already described in the previous year has again continued in 2013; thus 473 cryoconserved stem cell concentrates have been stored by the end of 2013 (compared to 448 concentrates in 2012, see also Table 1).

Mortality of the autologous transplantation program at the USZ of around 2% was again significantly below the worldwide reported average of just under 5%.

Variable	N	% Difference to previous year
Autologous stem cell transplantations	92	+19%
Stem cell collections	107	-8%
Stored stem cell concentrates (cryoconserved)	473	+6%

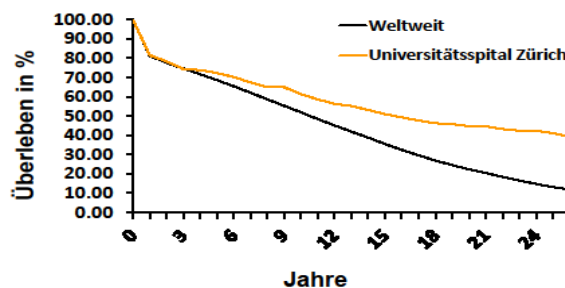
Table 1: Relation of autologous stem cell transplantations and collections

5.3. Heart transplantation

Markus Wilhelm – Cardiac surgery / Frank Ruschitzka – Cardiology

In 2013 the 400th heart transplantation was performed at the USZ. Thus more than 40% of all heart transplantations conducted in Switzerland have taken place at the USZ. The short- and long-term course survival rates are excellent.

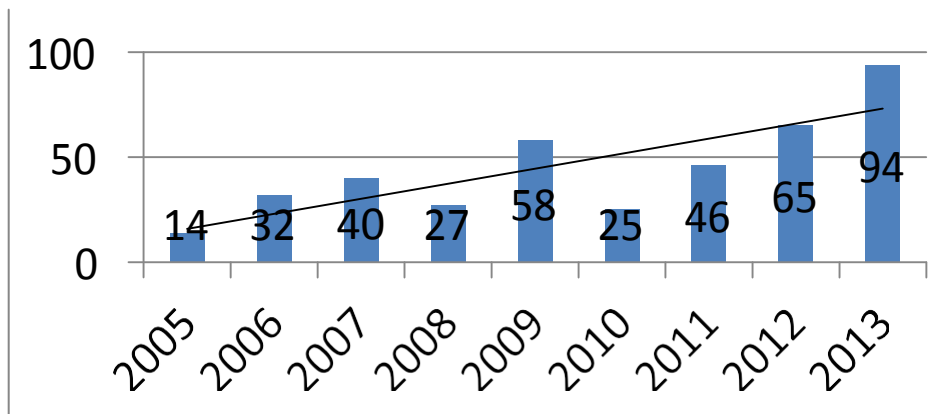
HTPL ZÜRICH - Im internationalem Vergleich
 Überlebensrate nach HTPL-Zürich 1984-2013 (Kaplan-Meier)
 Internationale Überlebensrate nach HTPL 1982-2012 (Kaplan-Meier)



These outstanding achievements have also been recognized by the Executive Committee of the intercantonal agreement for the concentration or coordination of Highly Specialized Medicine, which has renewed the permission to conduct heart transplantations to the USZ. A clinical study on the long-term survival of more than 20 years after heart transplantation could be published in a prestigious American journal.

Due to the shortage of organ donors the number of patients on the waiting list has significantly increased and the waiting periods have increased. This has led to a significant increase of the implantation of heart support systems (VAD) which are used for bridging the waiting periods in patients who otherwise have only a short life expectancy. With 18 implanted VAD the number has tripled compared to the previous year. This increase was in part also due to the fact that in elderly patients with a higher perioperative risk the implantation of a heart support system was preferred to heart transplantation. The use of short term circulatory support systems which are implanted in patients in cardiogenic shock or in respiratory failure has again significantly increased compared to the past year period. In collaboration with several working groups of the ETH it is investigated how the weaknesses of the currently available support systems can be improved by means of new technologies. This concerns in particular the biocompatibility of the inner surfaces, the transcatheter energy transfer and the individualised physiologic steering.

Circulatory support systems for short term bridging



5.4. Lung transplantation

Sven Hillinger – Thoracic surgery / Macé Schuurmans – Pneumology

In 2013 we could celebrate the 400th lung transplantation at the USZ which further consolidates our position as largest lung transplantation centre in Switzerland.

In total 38 lung transplantations have been conducted in 2013, whereof six from DCD donors, all of them with excellent results. Two donor lungs were evaluated by means of ex-vivo perfusion before transplantation; due to multiple bilateral lung embolisms one of them was in addition ex-vivo perfused with urokinase after systemic pre-treatment, i.e. before the organ implantation. Here the postoperative result is excellent as well.

The quality control for the examination and potential improvement of organ function in the ex vivo perfusion system in marginal donor organs is owed to the long-standing experimental research activity under the supervision of PD Dr. Ilhan Inci.

In the previous year two human lungs had already been tested in this system, but due to insufficient function had not been transplanted yet. This methodology will contribute in the future to further increase the organ pool in view of the still existing organ shortage, so that we will be able to offer an appropriate organ in time to all patients on the waiting list in the future.



Ex-vivo-perfusion of a marginal donor lung in the operating room of the USZ

Dr. Yoshito Yamada, thoracic surgeon from Chiba University of Tokyo, has replaced his colleague Dr. Yukio Tsushima from Juntendo University, Tokyo, as 'Visiting Transplant Fellow' at the Clinic for Thoracic Surgery and is involved clinically as well as in experimental projects.

PD Dr. Wolfgang Jungraithmayr has acquired his PhD title in the field of experimental immunology with his work "Cytokine complex expanded natural killer cells improve allogeneic lung transplant function via depletion of donor dendritic cells".

The autumn symposium of our transplant centre took place on November 15, 2013 on the subject "The immunized recipient". Prof. Dirk van Raemdonck, thoracic surgeon from Leuven and member of our international advisory board, could again be engaged as chairman and board member for this interesting and well attended symposium.

There has been a change in the medical direction of transplantation pneumology: After 20 years Prof. Dr. Annette Boehler left the team and the USZ. PD Dr. Christian Benden has been appointed as her successor and new medical director of lung transplantation at the USZ. We hereby want to thank Mrs Annette Boehler for her long-standing engagement for lung transplantation in Zurich, where she put an enormous effort into the matter of lung transplantation. With Christian Benden a transplant pneumologist is assuming the medical direction who has acquired his PhD at the University of Zurich in 2011 in the field of pneumology/transplantation medicine, and who due to his clinical experience from Zurich, but also internationally from London and Australia, offers optimal qualifications to further optimize the processes before and after lung transplantation and to intensify the international cooperation. Senior physician Dr. G.M. Tini has also left the team of transplant pneumology for a new challenge at the Cantonal Hospital of Aarau. Two new members have joined the medical team of lung transplantation in 2013, i.e. PD Dr. Lars C. Huber, senior physician, and Dr. Urs Bürgi, senior physician substitute.

With an increasing percentage of long-term surviving lung transplanted patients, who in the meantime are surviving more than 15-20 years, co-morbidities requiring a more complex interdisciplinary medical cooperation are increasingly in the centre of care. A considerable number of patients suffer from co-morbidities which often had already been present before transplantation but aggravate during long-term immunosuppressive treatment and also have an unfavourable impact on the long-term result after transplantation.

With regard to research we have been able to realize a number of publications on a national as well as international level (ISHLT Registry). Several members of the team have also presented lectures in international meetings. PD Dr. Christian Benden has been appointed member of the scientific program committee of the ISHLT Annual Meeting 2014 in San Diego as well as of international ISHLT expert boards for the elaboration of international consensus guidelines for the selection of candidates for lung transplantation and fungus prophylaxis in lung transplanted patients. Mr Benden is the local principal investigator of the prospective international multicentre study „SysCLAD – systems prediction of chronic lung allograft dysfunction“, a clinical scientific study funded by the EU within the scope of the “FP-7 Program”.

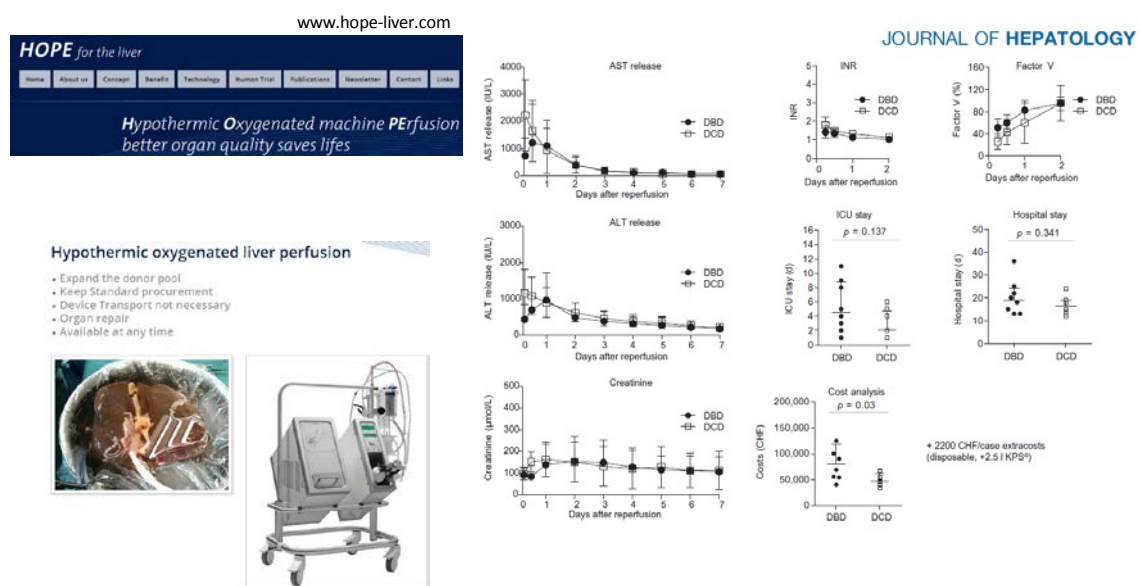
Lung transplantation remains furthermore one of the main focuses in clinical as well as in experimental research of the Clinics for Thoracic Surgery and Pneumology. In 2013 a total of 25 predominantly international publications and numerous scientific presentations have resulted.

5.5. Liver transplantation

Philipp Dutkowski – Visceral surgery / Beat Müllhaupt – Gastroenterology / Andrea Schlegel – Visceral surgery

In 2013 41 liver transplantations have been performed (vs. 43 in the previous year). The median MELD (Model for Endstage Liver Disease) score at the time of transplantation in 2013 was at 21 (also 21 in the previous year).

Altogether 9 DCD (Donation after Cardiac Death) liver transplantations have been performed after previous *ex vivo* graft optimization by means of hypothermic oxygenated perfusion (HOPE). So far the results show no significant difference compared to DBD (Donation after Brain Death) livers (Journal of Hepatology 2014, 60, 765-72).



5.6. Kidney transplantation

Thomas Müller–Nephrology / Erik Schadde–Visceral Surgery

In 2013 89 kidney transplantations have been performed at the USZ, which means a slight increase compared to 84 kidney transplantations in 2012. Thus kidney transplantation is the only field in organ transplantation where an increase in 2013 could be registered. With stable numbers of living donors (2012: 22; 2013: 22) and of organ donors after cerebral death (2012: 38; 2013: 41) the number of successful kidney transplantations could be raised thanks to the expansion of the organ pool by donation after cardiac death (DCD). This increase is very impressive, in particular since the yield and transplantation of DCD organs can only be achieved by means of considerable staff and logistic input.

Many of the conducted operations were combined organ transplantations: 11 combined kidney/pancreas transplantations, one combined kidney/islet cell transplantation, 2 combined kidney/liver transplantations and one combined kidney/heart transplantation have been conducted. Fortunately we have again been able to transplant three double kidneys and thus continue the trend we had started in 2010, to achieve a good function in the recipient by means of double kidney transplantation also with – due to lesser nephron mass - marginal donor organs. One kidney pair was harvested from a 16 months old donor and – since there was no paediatric recipient available – transplanted in a 58 year old recipient. All recipients of double organs showed a good transplant function in the postoperative course. We have thereby been able to communicate our innovative technique of paediatric en-bloc kidney transplantation in a publication in 2013.

In the first place, the year 2013 has brought along several staff changes. Unfortunately Jens Brockmann, our team leader of visceral surgery, was absent since August due to illness and the kidney (as well as pancreas) transplantation program has been continued on the part of visceral surgery by Erik Schadde and Kuno Lehmann. Thanks to the active support of Aurelia Schnyder, who took care of our surgery patients as transplantation nephrologist, a continuity of the patient care could be guaranteed without problems. Fortunately we have been able to recruit Thomas Müller from Edmonton, Canada to Zurich in 2013 in order to take over the management of transplantation nephrology as successor of Thomas Fehr. Prof. Müller is a designated expert in transplant genomics and has been principal investigator of the Genome Canada Program at the University of Edmonton in Alberta, Canada.

5.7. Pancreas transplantation

Erik Schadde / Kuno Lehmann – Visceral surgery

In 2013 altogether 15 pancreas transplantations have been conducted compared to 12 pancreas transplantations in the previous year, whereof 11 combined pancreas and kidney transplantations, 3 isolated pancreas transplantations and one simultaneous pancreas/small bowel transplantation. We thereby continued the established immunosuppression protocols and in some case also the exocrine drainage technique of the donor pancreas into the recipient duodenum introduced by Jens Brockmann in order to enable protocol biopsies.

Projects 2014

We will implement a living-donor consultation in the summer 2014. The aim of this consultation will be to simplify the processes of living kidney donor evaluations, to optimize the time processes and most importantly to guarantee a continuous attendance on the medical part as well. Already from May 2014 we will place one operation day per week at the disposal of shunt and port surgery in the North building of the USZ so that these interventions can be performed without delay.

5.8. Islet transplantation

Roger Lehmann—Endocrinology and diabetology

Multiorgan donors could be increased by 14% in 2013 (n=110); the increase can mainly be ascribed to the resuming of the DCD program (n=12). In this scope for the first time the pancreas of a DCD donor has been isolated, whereupon the time processes are still relatively unfavourable for pancreas donors and the isolation was therefore not successful. Through optimization of the time processes and optimal cooling of the pancreas the success of the isolation can still be significantly improved.

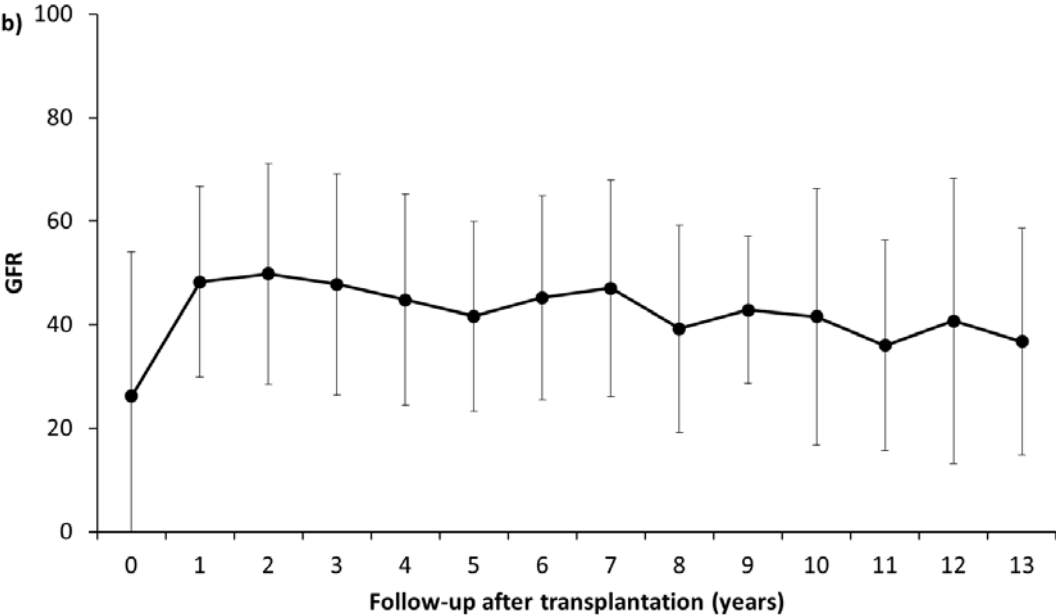
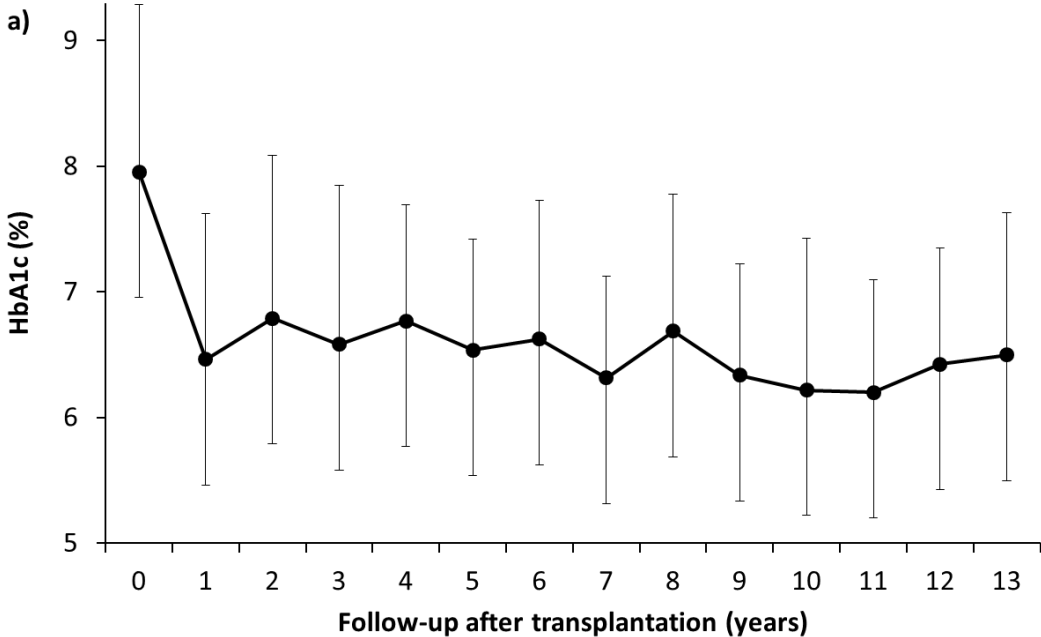
Altogether of 6 offered and accepted pancreata (1 DCD) 5 could be successfully transplanted. In all these patients the common immunosuppression and induction scheme was used (induction with thymoglobulin and a short prednisone therapy (4 days). Maintenance therapy consists of Tacrolimus (Prograf) and myfortic (mycophenolic acid). As adjuvants in islet transplantation etanercept (Enbrel) and a GLP-1 receptor agonist (liraglutid) are used.

The multicentric international islet transplant study (NN2211-3619) which was determined to test the effects of a GLP-1 therapy during the isolation of islets and post islet transplantation in patients with maintained renal function had to be stopped worldwide due to insufficient inclusion rate.

In addition to the long-term glycaemic control (*figure*) we have also examined the renal function of all patients with simultaneous islet-kidney and islet-post-kidney transplantation (*figure*) and could demonstrate that it is sufficient to achieve a endogenous insulin production (not insulin dependence) in order to prevent the progression of diabetic subsequent complications and in particular not to affect the function of the transplanted kidney and to maintain a good renal function of the transplanted kidney.

Hence the Zurich islet transplantation program since the year 2000 comprises 94 islet transplantations in 44 patients. Of all these patients 39 had a C-peptide production up to 13 years after the first transplantation.

The subsequent figure shows the **long term results with regard to glycaemic control (HbA1c) and renal function (eGFR)** of all patients **over the last 13 years**.



The interdisciplinary collaboration of our clinic under the guidance of Prof. R. Lehmann / Dr. Ph. Gerber with the Clinic of Visceral Surgery under the guidance of PD Dr. J. Brockmann / Dr. A. Schnyder and the Clinic of Nephrology under the guidance of Prof. Th. Fehr / Prof. R. Wüthrich with respect to the care of islet- or pancreas- and kidney transplantations works extremely well. All patients considered for kidney transplantation with type 1 diabetes mellitus are discussed and the indication for pancreas- or islet transplantation is decided jointly with the patient.

As since January 1st, 2014 health insurance covers the continuous glycaemic control not only for patients with insulin pumps but also for patients with basic bolus, this system is increasingly used already before pancreas- or islet transplantation, so that a further optimization of the blood glucose regulation can be expected before transplantation already, which should improve the result of combined transplantation.

With regard to research the project with the production of small pseudoislets laminated with nanoparticles in order to optimize the oxygen supply in the liver and hence the survival of islets in pig liver is continued (common project with the University of Dresden, Dr. B. Armann / Prof. St. Bornstein).

5.9. Small bowel transplantation

No small bowel transplantations have been performed at the USZ in 2013.

5.10. Reconstructive transplantation

Jan Plock, Reconstructive surgery and hand surgery

In 2013 a project group for the organization of a reconstructive transplant program has been formally established with the support of the Transplant Centre. The program is determined to comprise vascularized allogeneic transplantations of composite tissue such as the face and the extremities. The frame conditions for such a program, in particular with regard to ethics, cost absorption and legal situation, will have to be defined in detail in the future.

With my appointment as a board member of the Transplant Centre I have been entrusted with the responsibility to elaborate these frame conditions, whereupon Nicolas Müller is providing considerable support.

In collaboration with the Centre for Burn Injured and the Clinic for Haematology as well as the HLA Laboratory a clinical study has been initiated which is determined to provide data with regard to sensitization of severely burn injured as potential transplant candidates. In this study the effects of standardized treatment algorithms with skin transplantations, use of cadaver skin, blood transfusions and the use of extracorporeal cardiac and pulmonary assist devices are recorded. On an experimental basis research activities in the field of immune modulation with stem cells and extracorporeal perfusion for optimization of tissue donation and ischemia duration are in progress. To this aim collaborations in the scope of the Transplant Centre have been set up in Zurich. In addition there is a close cooperation with the Department of Plastic Surgery, UPMC, and the University of Pittsburgh. After I had the opportunity to become acquainted on-site with the clinical hand transplant program and upon initiating common research projects, Riccardo Schweizer is currently spending a research fellowship there with the support of the Swiss National Science Foundation.

6. Attachments

6.1. Staff of the Transplant Centre

	Direktorium	Kuratorium
Head	Coordinators Prof. Thomas Fehr/Prof. Nicolas Müller	Chairman Prof. Pierre-Alain Clavien
Heart	Prof. Frank Ruschitzka PD Dr. Markus Wilhelm	Prof. Thomas Lüscher Prof. Volkmar Falk
Lung	Dr. Macé Schuurmans PD Dr. Sven Hillinger	PD Dr. Christian Benden Prof. Annette Boehler/Prof. Walter Weder
Liver	PD Dr. Thomas Kuntzen Prof. Philipp Dutkowski	Prof. Beat Müllhaupt Prof. Pierre-Alain Clavien
Kidney	Prof. Thomas Fehr/Prof. Thomas Müller PD Dr. Marc Schiesser/ Dr. Erik Schadde	Prof. Rudolf Wüthrich Prof. Pierre-Alain Clavien
Pancreas and islet cells	Prof. Roger Lehmann PD Dr. Jens Brockmann	Prof. Giatgen Spinaz Prof. Pierre-Alain Clavien
Small bowel- and multi- visceral transplantation	PD Dr. Jens Brockmann PDDr. Christoph Gubler	Prof. Pierre-Alain Clavien
Stem cells	PDDr. Urs Schanz PDDr. Panagiotis Samaras	Prof. Markus Manz Prof. Christoph Renner (autologous)
Reconstructive transplantations	PD Dr. med. Jan Plock	
Consultant services	Prof. Nicolas Müller, Infectious diseases Prof. Günther Hofbauer, Dermatology Prof. Josef Jenewein, Psychiatry	PD Dr. Urs Schwarz
Anaesthesiology	Prof. Marco Zalunardo	Prof. Donat Spahn
Care	Béatrice Biotti	Prof. Rebecca Spirig
Intensive care medicine	PDDr. Markus Béchir/ Dr. Peter Steiger	
Transplant coordination	Werner Naumer	
Research	Prof. Rolf Graf	
Data- & Quality manager	Uschi Schäfer	
Clinical manager	Andreas Käser	
Dean		Prof. Klaus Wilhelm Grätz

International Advisory Board

Heart	Prof. Ernst Wolner, Vienna, Austria
Lung	Prof. Dirk van Raemdonck, Leuven, Belgium
Liver	Prof. Xavier Rogiers, Ghent, Belgium
Kidney	Prof. Ulrich Frei, Berlin, Germany
Pancreas and islet cells	Prof. Peter Friend, Oxford, Great Britain
Stem cells	Prof. Bob Lowenberg, CA Rotterdam ZH, Netherlands
Anaesthesiology & intensive care medicine	Prof. Christian Putensen, Bonn, Germany

Local Advisory Board of the Transplant Centre

Bellinzona	Ospedale San Giovanni	Prof. Dr. med. Claudio Marone
Chur	Rät. Kantons-/ Regionalspital	PD Dr. med. Reto Venzin
Faltigberg-Wald	Zürcher Höhenklinik Wald	PD Dr. med. Matthias Hermann
Frauenfeld	Kantonsspital	Dr. med. Markus Hugentobler
Gais	Klinik Gais AG	Dr. med. Angelika Bernardo
Luzern	Kantonsspital	Dr. med. Dominique Criblez
Seewis	Rehabilitationszentrum	Dr. med. Willhard Kottmann
St. Gallen	Kantonsspital	Dr. Dr. med. David Semela
Winterthur	Kantonsspital	Dr. med. Thomas Kistler
Zollikerberg	Spital Zollikerberg	Dr. med. Jörg Bleisch
Zürich	Stadtspital Waid	Prof. Dr. med. Patrice Ambühl

6.2. Transplantation activities 2008 – 2013

Organ	2008	2009	2010	2011	2012	2013
Heart total	9	9	12	14	11	10
- Heart and kidney	1	0	0	0	0	1
Lung total	25	26	26	30	33	28
<i>thereof DCD</i>	0	0	0	0	2	5
Liver total	28	50	45	47	43	41
- NHBD single-liver	23	44	41	39	39	27
<i>thereof DCD</i>	0	0	0	1	3	9
- Living donor liver	4	4	2	7	4	2
- Liver and kidney	1	2	2	1	0	2
- Liver and small bowel	0	0	0	0	0	1
Kidney total	83	85	88	100	80	84
- NHBD single-kidney	42	47	44	57	47	47
<i>thereof DCD</i>	0	0	0	6	9	6
- Living donor kidney	29	29	30	32	22	22
- Kidney and pancreas	10	7	9	9	10	11
- Kidney and islet cells	0	0	3	1	1	1
- Kidney and heart	1	0	0	0	0	1
- Kidney and liver	1	2	2	1	0	2
Pancreas total	10	7	9	11	12	15
- Pancreas alone	0	0	0	1	2	3
- Pancreas and kidney	10	7	9	9	10	1
- Pancreas/small bowel (multivisceral)	0	0	0	1	0	1
Islets total	7	5	9	6	5	5
- Islet cells alone	7	5	6	5	4	4
- Islet cells and kidney	0	0	3	1	1	1
Small bowel / multivisceral	0	0	0	1	0	1
Stem cells total	-	-	119	148	128	149
- autologous	(not in TPLZ)	(not in TPLZ)	65	96	77	92
- allogeneic	36	34	54	52	51	47

Multi-organ donations at the USZ	2008	2009	2010	2011	2012	2013
Donors from USZ	8	2	7	5	12	18
- <i>thereof DCD</i>	0	0	0	3	6	9
Donors from ZH network	7	10	3	7	7	6
Total donors USZ plus network	15	12	10	12	19	24

6.3. Outcome organ transplantations

Since 2013 the results are published nationwide for all centres. This is in accordance with the transplantation law and the by-law. The report is available on www.stcs.ch. An important task is coming up with the benchmarking project, since the absolute numbers can only be compared on a relative level.

6.4. International Advisory Board (IAB) Meeting 2013

Nicolas Müller – coordinator TPLZ

Minutes of the Meeting of the International Advisory Board 2013

Date and time Friday, November 15th, 2013, 10:00 h – 12:00 h
Place Restaurant im Turm, Zurich

In preparation of the 7th international autumn symposium on November 15th, 2013, a meeting of the international advisory board of our centre took place at the restaurant “Im Turm” of the University of Zurich.

The subsequent members were present:

- On behalf of IAB: Ulrich Frei, Christian Putensen, Xavier Rogiers, Ernst Wolner, (excused: Peter Friend, Bob Lowenberg, Dirk van Raemdonck)
- On behalf of TPLZ: Nicolas Müller (coordinator TPLZ), Christian Benden, Pierre-Alain Clavien, Philipp Dutkowski, Thomas Lüscher, Volkmar Falk, Beat Müllhaupt Reto Schüpbach (representative of Prof. Spahn, anaesthesia), Walter Weder, Rudolf Wüthrich

As an introduction Nicolas Müller, coordinator TPLZ, presented the events, numbers and facts of the year 2013 as starting point for discussion. In particular the following items were addressed:

- The positive development of donor numbers and the consolidation of the Donor Care Association
- The nationwide publication of the outcome numbers on www.stcs.ch
- The decision of highly specialized medicine to allow heart transplantations in 3 centres in Switzerland in the future

Organ donation:

E. Wolner points out that organ donation ought to be represented as donors per million inhabitants in order to enable a better comparison. In the ensuing discussion several members of the board of trustees mention the tense hospital-internal situation in a DCD donation. Main problem are the missing prioritization and the lacking resources, since in such donors several organs incur at once. An improved coordination as well as a more distinct allotment of resources and priorities is considered very essential by the IAB.

Heart transplantations:

V. Falk mentions again the positive decision of the HSM and the respective obligation to offer a comprehensive clinical supply for heart patients. This is ensured at any rate by the newly opened heart centre, where the entire supply is available. Also, V. Falk again points out the excellent long-term results, which serve as a basis for quality re-assessment. A further problem consists in the indemnification of the various assist-device techniques, which in part is only realized after the patient has been listed for transplantation, which can lead to a distortion of the list.

Liver transplantation:

Due to the change of the allocation procedure based on MELD predominantly seriously ill patients have been transplanted in the recent years, though it has to be emphasized that in the presence of a hepatocellular carcinoma a so-called corrected MELD is used. The data for Zurich are excellent also with regard to the significantly worse medical condition of the patients, although it has been re-emphasized that a correct benchmarking is highly decisive for the comparability of the numbers nationwide.

Lung transplantation:

Walter Weder mentions in the first place the problem of central allocation. Although it is statutory according to law and regulation, it does not allow fine-tuning and thus no optimization of allocation. Although the cooperation between the two centres is excellent, a revision of the law and regulation would be mandatory in order to put the allocation at least in part back into the hands of the centres again.

In this context Xavier Rogiers inquires about an age limit, which in fact does not exist in Switzerland.

Kidney transplantation:

Rudolf Wüthrich points out that the contingent of living donations of currently 5 – 10% could certainly be increased. This will be a priority of the work of the successor of Thomas Fehr, Thomas Müller from Edmonton, who is presently in charge of a large living donation program there.

General subjects:

In the ensuing discussion the scarce resources for transplantations in the Zurich centre are again brought up. This is also confirmed by the representative of anaesthesia, who among other things points out to the problem that the operation planning is fully in the hands of trauma surgery which is not always prioritizing transplantation. This, however, is of crucial significance for the reduction of cold ischemic time periods.

Another issue of discussion is the question whether there could or ought to be an age matching of organs. The subject has already been discussed in different working groups of Swisstransplant. However, it is not an allocation criterion in Switzerland up to the present.

It was also discussed how by means of self-help groups somewhat more pressure could be put on the legislators in order to realize certain legal modifications. In this context it was also proposed to invite the hospital director to the next IAB meeting so as she can get some first-hand information about the current problems of the transplant centre.

As one of the major problems certainly the insufficient resource assignment and prioritization of transplantation in Zurich have become apparent during the discussion. This should be approached actively. There are certain efforts under way; in particular the point is an improved allocation of operation capacities.

E. Wolner summarizes the situation in a concluding statement as follows:

The IAB is quite satisfied with the work of the transplant centre. In order to furthermore allow it an optimal activity and pacemaker function, every effort should be made on the part of the hospital management in order to improve the resources for transplantations.

After the meeting a common lunch takes place at the restaurant “Zum Turm”.

For the minutes: N. Müller / K. Enggist

6.5. Scientific publications 2013

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Collaboration in national and international guidelines. Mueller NJ:

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6.6. Transplantation awards 2013

On the occasion of the autumn symposium in November 2013 the awards of the Transplant Centre Zurich have been assigned for the 4th time.

TPLZ science award 2013:

Dr. med. Andrea Schlegel, Clinic of Visceral and Transplant Surgery USZ, for his work: „Hypothermic oxygenated perfusion (HOPE) protects from biliary injury in a rodent model of DCD liver transplantation”, published in the *Journal of Hepatology*, 2013

TPLZ merit award 2013:

Prof. Dr. med. Thomas Fehr, Nephrology USZ

6.7. Continuing education program 2013

Nicolas Müller – member organizing committee TNT

Again the seminar *Hot Topics in Transplantation* has been able to attract notable and internationally renowned referees. This was only possible with the support of a generous sponsoring (Astellas Pharma AG, MSD AG, Novartis Pharma Switzerland AG, Pfizer AG, Sanofi and Roche Pharma (Switzerland) AG), for which we would hereby like to express our sincere thanks!

Martina Sester (Transplant and Infection Immunology, University Clinic of Saarland, Germany) spoke on the quickly developing role of immune diagnosis in tuberculosis. Johannes P. van Hooff (Prof. emer., University Hospital Maastricht, Netherlands) reported on “Long-acting tacrolimus experiences in kidney and liver transplantation”, Michael Hübler (Children Cardiology, University Children Hospital, Zurich) presented the most recent developments in children cardiac failure. Christian van Delden (Geneva) spoke on influenza vaccination in SOT. Gilles Blanche (Clinical nephrology and immunology, CHU Nantes, France) spoke on “Costimulation blockade in solid organ transplantation”. Highlight from a transplant-political viewpoint was the lecture of Council of States Felix Gutzwiller on the topic “Consent versus contradiction solution for organ donation - the politician’s point of view”.

6.7.1. Autumn Symposium 2013 „The immunized recipient”

6.7.2. Monthly seminar „Hot topics in transplantation” (TNT)

Attached:

- Program TNT 2013
- Program Autumn Symposium 2013



Organ donation.
The gift of life.

7th Annual Symposium of the Transplant Centre Zürich “The immunized recipient”

Friday, November 15th, 2013,
University Hospital Zürich, Grosser Hörsaal Ost



UniversitätsSpital
Zürich

- from 12.15 *Warm Lunch (Dick & Davy)*
- 13.30–13.40 **Welcome address**
Gregor Zünd
Pierre-Alain Clavien
- 13.40–14.00 **Transplant Centre Zurich: annual report**
Nicolas Mueller, Zürich

Part I – TRANSPLANTATION IMMUNOLOGY FOR BEGINNERS

Chairmen: U. Frei, R. Graf

- 14.00–14.30 **Memory alloimmune response – what makes it so difficult to overcome? – Lessons from experimental models**
Andrew Bushell, Oxford
- 14.30–15.00 ***Avoiding the problem: the Swiss virtual PRA kidney allocation project***
Jean Villard, Geneva
- 15.00–15.30 ***Dealing with the problem: tools to target sensitized B and T cell responses***
Thomas Fehr, Zürich, Chur

Part II: SPECIFICS: “HOW DO WE TRANSPLANT ...

Chairmen: C. Putensen, U. Schanz

- 15.30–15.50 **... the sensitized lung and heart recipient”**
Andreas Zuckermann, Wien
- 15.50–16.20 *Coffee break (Dick&Davy)*
- 16.20–16.40 **... the sensitized kidney recipient”**
Thomas Müller, Edmonton
- 16.40–17.00 **... the sensitized stem cell recipient”**
Jean-Marie Tiercy, Geneva
- 17.00–17.20 **... the sensitized pancreas and islet recipient”**
Susan Fuggle, Oxford

AWARDSZURICHTRANSPLANTCENTER

- 17.20–17.30 **Awards Zurich Transplant Center**
Jens Brockmann, Zürich

PART III – ROUND TABLE

Chairmen: J. Villard, T.Fehr

- 17.30–18.00 **Round table discussion: The immunized recipient**
- 18.00–18.15 **Closing remarks**
Pierre-Alain Clavien, Zürich
- from 18.15 *Apéro (Dick&Davy)*

Speakers

PD Dr. Jens Brockmann
Division of Visceral and Transplant Surgery
University Hospital Zurich

Dr. Andrew Bushell
Nuffield Department of Surgical Sciences
Cancer Centre Churchill Hospital Oxford, UK

Prof. Pierre-Alain Clavien
Division of Visceral and
Transplantation Surgery
University Hospital Zurich

Prof. Thomas Fehr
Division of Nephrology
University Hospital Zurich

Dr. Susan V. Fuggle
Director of Transplant Immunology
Oxford University Hospital, UK

Prof. Nicolas Müller
Division of Infectious Diseases
University Hospital Zurich

Prof. Thomas Müller
Division of Nephrology and Transplant
Immunology Department of Medicine
University of Alberta, Canada

PD Dr. Jean-Marie Tiercy
National Histocompatibility
Reference Laboratory
University Hospital Geneva

Dr. Jean Villard
Head, Immunology and Transplant
University Hospital Geneva

Prof. Andreas Zuckermann
Director of Cardiac Transplantation Vienna
Medical University of Vienna, Austria

Prof. Gregor B. Zünd
Director Research and Education
University Hospital Zurich

Chairmen

Prof. Pierre-Alain Clavien
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Prof. Gregor B. Zünd
Director Research and Education
University Hospital Zurich

Credits

SGC Swiss Society of Surgery:	4 points
SGN Swiss Society of Nephrology:	4 points
SGDV Swiss Society of Dermatology	3 points
SGG Swiss Society of Gastroenterology:	4 points

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Organization and Contact

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Registration

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katharina.enggist@usz.ch



Datum	Topic	Thema	Referent	Affiliation	Host
28.01.2013	Leber	Donor-Recipient matching in Liver transplantation	Philipp Dutkowski	Transplantations- und Viszeralchirurgie, Universitätsspital Zürich	B. Müllhaupt
25.02.2013	Infektiologie	TB or not TB: The role of immunodiagnosis in pretransplant evaluation	Martina Sester	Transplantations- und Infektionsimmunologie, Universitätsklinikum des Saarlandes, Homburg	N. Müller
25.03.2013	Niere/Leber	Long-acting tacrolimus - experiences in kidney and liver transplantation	Johannes P. van Hooff	Prof. emer., University Hospital, Maastricht, Netherlands	Th. Fehr
29.04.2013					
27.05.2013	Organspende	Zustimmungs- versus Widerspruchslösung für die Organspende - die Sicht des Politikers	Felix Gutzwiller	Institut für Sozial- und Präventivmedizin, Universität Zürich; Ständerat Kt. Zürich	Th. Fehr
24.06.2013	Herz	Terminale Herzinsuffizienz bei Kindern und GUCH – Transplantation oder VAD?	Michael Hübler	Kinderkardiologie, Universitätskinderhospital Zürich	M. Wilhelm
26.08.2013	Lunge	Influenza vaccination responses in solid organ transplant recipients	Christian van Delden	Maladies infectieuses, Hôpitaux Universitaires des Genève	S. Hillinger
30.09.2013	Basic science	Costimulation blockade in solid organ transplantation	Gilles Blancho	Néphrologie et immunologie clinique, CHU de Nantes, France	M. Schneider
28.10.2013	Composite tissue	State of the art in composite tissue transplantation	Jan Plock	Klinik für Plastische Chirurgie und Handchirurgie, Universitätsspital Zürich	N. Müller
25.11.2013	Stammzellen	Non-HLA polymorphisms in GvHD	Jean-Marie Tiercy	Laboratoire national de référence pour l'histocompatibilité, Genève	U. Schanz

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