Swiss Transfusion SRC Inc. is an independent, non-profit public limited company within the Swiss Red Cross (SRC). The majority of its shares are owned by the SRC, while the remaining shares belong to the 13 regional blood transfusion services. Both the umbrella organisation (Swiss Transfusion SRC) and the regional blood transfusion services are non-profit organisations.

Swiss Transfusion SRC ensures the supply of blood products to hospitals along with the regional blood transfusion services on behalf of the Swiss federal government. Samaritan associations are important partners for this work. The work of the umbrella organisation also includes guaranteeing the quality of the blood donation right through to the product and ensuring standardised regulations in the different regions.

The core responsibilities of Swiss Blood Stem Cells (SBSC) are the management of the registry of blood stem cell donors in Switzerland as well as the recruitment and mediation of blood stem cell donors for patients at home and abroad. A blood stem cell transplant is often the only chance for a cure for people suffering from malignant blood diseases such as leukaemia.
Tailor-made

A tailor-made suit is distinctly different from a garment bought "off the rack". This truism is increasingly colouring customer-supplier relationships: customers want products which have been tailored to their specific needs as precisely as possible. Our business environment, the health sector, is not immune from this development: the significance of the term "personalised medicine" continues to grow.

This development has been making itself felt in the field of blood stem cells for some time. More and more frequently, procedures specifically adapted to an individual patient are taking the place of standardised requests. This demands a high level of adaptability from our organisation. Therefore the challenges the future holds for our organisation will increasingly be associated with consultancy in the field of transfusion medicine, in addition to the procurement and processing of blood.

This assessment is also reflected in the 2013 – 2018 umbrella strategy, adopted by the Supervisory Board of Swiss Transfusion SRC at the end of the year, after a broadly based participatory procedure. The strategy identifies the following central strategic objectives for our organisation:

• Strengthening our position in the fields of transfusion medicine and transplantation medicine
• Optimal safety and quality of services and products
• Development and promotion of new, selected products and services

The Supervisory Board defined these three strategic objectives as being the most important among a set of objectives. This indicates that "personalised medicine" will be coming into play in our area of activity increasingly over time – and that we are facing the challenges that entails.

Prof. Dr Thomas Zeltner
President of the Board of Directors
Swiss Transfusion SRC Inc.

A difficult interpretation

A difficult interpretation

Since 2005, one of the main tasks of the umbrella organisation Swiss Transfusion SRC has been what is called procurement planning: advanced planning with the greatest possible precision regarding the quantities and types of blood products hospitals and clinics will need and how these products are to be procured. In the recent past it was possible to anticipate demand with a relatively high degree of precision – but 2013 saw a drop in blood demand of 6.1 per cent, a scale of decrease we had not expected.

Of course, a reduction in the amount of blood used is, first and foremost, welcome news for the healthcare system. Undoubtedly, one relevant factor is a heightened awareness in interpreting indications for blood products. Advances in medicine allow clinicians to be more circumspect in their use of valuable blood. Diagnosis-based lump sums (DRG), introduced in hospitals and clinics two years ago, have also been discussed in this context.

However, headlines like "The SRC no longer needs blood donors" are not called for, quite the opposite: no one can reliably predict whether the decrease will be sustainable. And the ten-year comparison shows that while the demand for blood fell by 9.5 per cent, donations fell by 15 per cent.

Although the amount of blood products needed by hospitals and clinics has diminished, our need for new donors continues. This is because around five per cent of donors become ineligible each year due to the age restriction. Replacing them continues to require great effort.

The blood stem cell area, for its part, experienced not a decline, but striking growth rates. The SBSC, which celebrated its 25th anniversary in 2013, increased the number of registered Swiss donors from 20,000 to today’s 50,000 within just a few years. And it will not stop there: the aim is to raise that figure to as high as 100,000 by the year 2020. This is an ambitious goal, but one that is in line with our strategic vision in which a suitable blood stem cell donor is found for every patient.

Dr. Rudolf Schwabe
Managing Director and CEO
Swiss Transfusion SRC Inc.
Decrease in blood use

The blood products area showed declining consumption in the past year. For instance, total units of red blood cell concentrate supplied fell 6.1 per cent compared to the previous year.

One of the chief tasks of the umbrella organisation Swiss Transfusion SRC is something called procurement planning. This involves estimating, as precisely as possible, how many blood products the hospitals will need and planning how they can be acquired. In the past, it was possible to estimate future demand with a relatively high degree of precision – however, 2013 saw a 6.1 per cent fall in demand for red blood cell concentrates, a decrease on an unanticipated scale.

Other countries also reporting decreases
It is rather difficult to point to an explanation for this, the steepest decline in many years. One important factor is probably that clinicians are now far more aware and cautious in interpreting indications for blood products than they were in the past. Threshold haemoglobin levels provide an example: until a few years ago, red blood cell concentrates were given to patients in hospital whose haemoglobin levels had fallen below 100. After being lowered to 80 or 70, the threshold value is now frequently even lower.

A second factor may well be the enhanced cost awareness in hospitals and clinics of recent years. Diagnosis-based lump sums (DRG), introduced in hospitals and clinics two years ago, have also been discussed in this context. However, DRG can be ruled out as the chief contributing factor because Switzerland is only one of many countries reporting decreases on a similar or even greater scale.

Drop in demand for red blood cell concentrate

In the year under report, consumption of units of red blood cell concentrates dropped significantly, to 279,510 units (down 6.1 per cent). Use had peaked in 1990, at 354,000 units, with demand falling below 300,000 units at around the turn of the century. Over the past ten years, red blood cell consumption has fallen 9.5 per cent (see chart).

Slight rise in platelet demand
In 2013, 34,750 units of platelet concentrate were supplied to hospitals and clinics (previous year: 34,265). Thus the total consumption of platelet concentrates rose by 1.4 per cent compared to the previous year (previous year: up 1.6 per cent). In earlier years, a recurring annual increase in demand of around five to ten per cent had been recorded. Platelet consumption increased by almost 120 per cent in the ten-year comparison.

Plasma demand down again
In the year under report, the declining trend seen in plasma demand since 2009 was confirmed once more: demand for fresh-frozen plasma (FFP) for transfusion purposes, as quarantine-stored plasma and SD plasma, fell by 11.5 per cent in the past year, to 44,083 units (previous year: down 7.6 per cent). In the ten-year comparison, consumption of platelets has fallen by a third.

How many units of donated blood are needed for a patient with multiple injuries?
Donor recruitment still important

Just over 344,000 units of donated blood were procured last year, a 4.8 per cent decrease over the previous year. On the consumption side, use of blood products dropped even more significantly (see p. 6). Nonetheless, donor recruitment remains important.

In 2006, a stabilising trend emerged in the numbers of blood donations in Switzerland, though their numbers had dropped off markedly in preceding years. The year under report saw a break in that trend once again: 344,174 units of blood were donated (including autologous blood and apheresis), meaning that blood donations fell by 17,300 units, or 4.8 per cent.

This almost five per cent drop should not be considered or interpreted in isolation though, as 2013 also saw consumption of blood products drop, even more significantly (see p. 6). The most revealing perspective is offered by a ten-year comparison for both figures. Between 2004 and 2013 we see a 15 per cent fall in the number of blood donations, accompanied by a 9.5 per cent fall in the use of red blood cell concentrates. Thus, although the decrease in the use of blood products in 2013 is going to continue, or whether a significant increase in the amount of blood needed will emerge in a few years’ time. Thus, the importance of donating blood is as great as it ever was – because no one can be sure that we will not see a shortage of blood products again, even as early as next summer.

No fewer blood donors needed
This means that despite the surprising, marked drop in consumption in 2013, the future will not see a decrease in the number of blood donors needed. Awareness raising and new-donor recruitment activities must continue for several reasons: one is that many loyal blood donors will reach the age limit for donor eligibility within the next few years. Every year, the age limit forces around five per cent of donors to stop giving blood, and that proportion seems likely to rise in the coming years. Moreover, the experience of the blood transfusion centres indicates that it can take as many as four new donors to replace one loyal donor of many years. Due to the strains of the professional and family lives of many of today’s new donors, a long-term commitment is far less a matter of course than it might have been, for instance, 20 or 30 years ago.

Finally, no one knows whether the decline in the use of blood products seen in 2013 is going to continue, or whether a significant increase in the amount of blood needed will emerge in a few years’ time. Thus, the importance of donating blood is as great as it ever was – because no one can be sure that we will not see a shortage of blood products again, even as early as next summer.

Fewer donations per event
Experience has shown that a certain degree of fluctuation in the collection ratio for mobile teams and stationary centres is not unusual. In the year under report, mobile teams were able to collect 149,412 donations (down 2.6 per cent). Overall, 1,912 blood drive events (previous year: 1,882) were held in a total of 982 localities (previous year: 896). In other words: the number of localities visited was significantly increased again in 2013, helping to compensate for a past reduction due to logistical considerations. However, the average number of blood donations collected per blood drive continues to fall: still at 89.5 as recently as in 2008, the figure has since slipped down to 78.

The number of blood donations collected in stationary centres declined as well over the same period, with 194,762 donations (down 6.33 per cent in 2013 and three per cent in 2012). The centres have not reported an increase in the total number of blood donations since a 2.5 per cent rise in 2009.

Autologous donation now almost irrelevant
One factor influencing the figures for stationary centres is the collection of autologous blood (self-donations). The statistics here include both allogeneic and autologous blood collection, though they do not reflect autologous collections which take place in hospitals. The number of preoperative autologous collections procedures has been falling for years: 2013 also saw a marked decline, amounting to almost 15 per cent. There are now around 1,000 autologous blood collections performed each year. By way of comparison, in the 1990s, more than 15,000 such collections took place each year.

National procurement planning
One of the most important areas of activity of the umbrella organisation Swiss Transfusion SRC is national procurement planning to ensure the best possible blood supply. The task of meeting the entire demand for blood products is one for Switzerland as a country, not something for each individual region to attempt on its own behalf. This is why we work with the regional blood transfusion centres at the national level to determine the level of blood demand to be expected each year – and how we can meet it together.

Inventory control
A satisfactory inventory consists of around 7,500–9,000 units of red blood cell concentrates (RCC). It is essential to stock up additional supplies when high days or holidays are coming up though. Should stocks drop down to the 6,000 RCC level, there is already a risk that hospitals and clinics will have to postpone certain elective procedures. On the other hand, maintaining stocks of more than 12,000 RCC is not necessarily desirable due to the limited shelf life of the blood products. Even when the total stock of RCC is adequate, supply can still be tight for individual blood groups, which further complicates planning and logistics.

In the year under report, inventories dipped below the 8,000 unit mark in only one month, August (see chart). The overview of inventories shows that it was possible to stock up effectively in June/July 2013 in order to make it through the difficult summer holiday period as smoothly as possible. An equally large increase in stock levels is necessary in December, to be in a position to cope effectively with the problematic holidays at the year’s end as well as the flu season in January/February.

Low outdate rate
Precise planning permits the use of the most economical approach to the valuable “commodity” of blood. Many blood products can only be stored for a short period of time, and the various blood groups restrict their uses even further. For that reason, from time to time individual blood bags reach their expiration date and have to be destroyed.

For the reasons above, even an outdate rate as high as five per cent is considered good in the European context. Thanks to flexible, supra-regional planning, the blood transfusion services in Switzerland can report an extremely low outdate rate of only 1.8 per cent (previous year: 1.2 per cent).
Interregional redistribution

There are two key aspects in procurement planning: redistribution of the supply among regions which continually have either not enough or too much blood available and seeing that a certain “reserve” is always on hand to ensure that blood products would be available in adequate supplies even in the case of shortages or unexpected events (e.g. a major accident).

Due to structural factors, not all regions in Switzerland are capable of fully meeting their own blood demand alone. Specifically, two factors are in play: more complex operations frequently require large quantities of blood products and these types of operation tend to be performed primarily in the larger university hospitals (Bern, Zurich, Basel, Geneva and Lausanne). More rural areas, such as the Jura region, do not have large hospitals of this kind. The reverse is true when it comes to blood product procurement: in small, largely urban cantons, such as Basel or Geneva, it is virtually impossible to recruit blood donors in sufficient numbers. In rural areas, though, one finds a strongly rooted tradition of willingness to give blood.

As a result, the urban centres with large hospitals (specifically Basel and Geneva) are forced to rely on a continual supply of redistributed blood products. The suppliers are the large regional blood transfusion services. The suppliers are the large regional blood transfusion services. The suppliers are the large regional blood transfusion services. The suppliers are the large regional blood transfusion services. The suppliers are the large regional blood transfusion services. The suppliers are the large regional blood transfusion services. The suppliers are the large regional blood transfusion services. The suppliers are the large regional blood transfusion services.

Swiss reserves

The following regional blood transfusion services have been commissioned for anti-cyclical supplies to cope with temporary shortages (number of erythrocyte concentrates):

- Basel 10,990
- Geneva 4,600

Those units were supplied by the blood transfusion services:

- Bern 6,225
- Graubünden 1,376
- Neuenburg-Jura 7,129
- Zurich 860

A day with the mobile team in Bern

My work day starts somewhere between 12 and 4 pm; depending on where we are heading that day. Before the rest of the team arrives an hour later, I load the vehicle: computers, haemoglobin meters, blood bags, etc. In 26 years, I have never forgotten to load something essential, thank God! Depending on the destination, there are up to 15 people in the team — all women, other than myself; it’s a seasoned team, everyone knows what has to be done. Our Bern-based mobile teams cover broad areas in German-speaking Switzerland, stretching all the way to Andermatt.

The blood donation drives start between 5 and 6 pm; we are supposed to start setting up about 45 minutes in advance. Traffic congestion can be aggravating and, above all, unpredictable. We have been known to arrive half an hour late, or even too late to start at all. Thanks to the mobile phone, we can at least get in touch with the people from the local Samaritan group; once, before the “mobile age”, we were allowed to send them a message via the police and their radio.

We know in advance quite accurately what to expect at each blood donation drive. The number of donors seldom varies from the previous year’s number by more than ten per cent. Of course, certain outside factors can have a fairly big impact: on a summer evening just made for grilling or when there is an exciting football match on television, there’s sure to be an empty bed or two in the donation room.

Usually everything goes quite well and smoothly, thanks to the solid teamwork and the great dedication of the local Samaritans. Sometimes people have to wait for a while; that is almost impossible to avoid. Most donors will wait patiently though, and spend the time chatting with acquaintances or neighbours.

Typically we plan on about three hours for each blood drive. They can last longer if a lot of people show up, or if a first-time donor comes in close to the end. We usually watch the first-time donors for a bit longer, to make sure they come through their first donation well.

It is often relatively late by the time we get back to Bern. The other team members can call it a day then, but I still have about an hour of work to do: unloading materials, taking the blood bags in for processing, uploading the data to the main computer, etc. The temperature report for the trailer where the donated blood is stored is very important. Donations have to be stored between 20 and 24°C until they arrive at processing.
Focus on tropical pathogens

Before donated blood is made available for a patient, it is subjected to a battery of tests.

One hundred per cent certainty is never possible: in the case of HIV, for instance, there is a window of about twelve days after contraction of the disease before it can be detected in the lab. If someone who has been infected with the AIDS virus goes to give blood during that 12-day window, he or she is endangering the life of another human being because no tests can succeed during that period. In the case of hepatitis C, this “window period” is even longer, 20–30 days.

Last year, two units of donated blood infected with HIV were identified in time and destroyed (see also charts). This is the same number found in the previous year. Hepatitis C was detected in 11 donations (previous year: 22) and hepatitis B in 27 (previous year: 26).

The last instance of a patient being infected with HIV via a blood transfusion in Switzerland was in the summer of 2001. The donated blood involved came from a “window period” (see above).

Pathogen inactivation

The nationwide introduction of pathogen inactivation for platelet concentrates in 2011 can be viewed as a great success: over 100,000 units of platelet concentrate produced using this new technique have now been transfused without a single documented case of bacterial transmission.

Pathogen inactivation is a technique allowing the destruction of a large majority of viruses, bacteria and parasites in various blood components.

West Nile virus continues to spread

With respect to tropical diseases, the West Nile virus (WNV) in particular is posing great challenges for European blood transfusion services. This pathogen, tropical in origin, is now showing up in southern European countries. Whereas three years ago, there were five regions/countries which were considered as risk areas for WNV, the virus now affects a great many countries spread over 50 different regions. In the summer months, in particular, risk areas can change within a matter of days, making it practically impossible to inform donors in time.

There is no evidence that this virus has ever actually been transmitted via a blood transfusion in Switzerland. In all reported cases, the individuals involved had themselves travelled to southern European countries. Due to Switzerland’s specific circumstances and its population’s great fondness for travel, the blood transfusion services are currently considering the nationwide introduction of a WNV test.

“I have been able to see a lot of changes in the last 35 years.”

Working in the immunohaematology laboratory demands a very high degree of concentration. Carelessness is something we cannot afford here – it could have grave consequences for a patient. So, to work here one has to take pleasure in doing meticulous, flawless work.

Immunohaematology analyses include all of the pretransfusion tests performed to ensure that a patient’s immunological characteristics match those of the donor. Thus, it primarily involves determining the blood types in the different systems, but it also includes screening for irregular antibodies. The serological tests – meaning the tests for infectious agents like HIV, hepatitis, etc. – are conducted in another specialised laboratory within our service.

To put it into numbers: we type around 10,000 units of donated blood annually and work on 50 patient cases each day. The latter often involve chronic illnesses associated with transfusion problems. Our analyses can sometimes take several hours, lasting well into the night or requiring weekend work. But when the analyses are complete, we know which blood products can be given to the patient in question. This creates a special relationship to the patients: we know their names, we know a great deal about their illness and treatment history, but normally we do not know them personally.

Letizia Caramezzi is the director of the immunohaematology laboratory of the Blood Transfusion Service in Lugano in the Italian-speaking region of Switzerland.
The slogan of the 2013 blood donation campaign “Blut spenden – das mache ich!” (“Give blood – I’m doing it!”) was taken to heart by several well-known figures, including Ueli Maurer, President of the Swiss Confederation. The message “Blut spenden – das mache ich!” was supported by celebrities from several different industries, including Roman Kilchsperger, Fiona Hefti and Carlo Janka. Their statements made it clear that people donate blood for a variety of reasons. Sandra Studer, for example, said “I give blood, because it cannot be manufactured artificially”. René Prêtre knows from personal experience its importance of giving blood and motivated others to follow suit.

Blood bags” wherever you looked
On the Friday morning of World Blood Donor Day, “blood bags” drew the attention of morning commuters and passers-by at several public sites in Switzerland. The bags, in the shape of standard blood bags and filled with red shower gel, were put out by regional blood transfusion services as part of a guerrilla campaign aimed at raising public awareness of blood donation. At the same time, stands were set up in many locations, in part to distribute informational material.

Reinforcement by media and celebrities
Both the Federal Parliament Building blood drive and the regional guerrilla activities generated broad coverage in the media, reinforcing the impact of the activities designed to raise awareness. One indication of this was the high visit rates and the length of visits (of multiple minutes) at the campaign’s website, wblutspendentag.ch, launched at the start of the campaign. The message “Blut spenden – das mache ich!” (“Give blood – I’m doing it!”) was also supported by celebrities from several different industries, including Roman Kilchsperger, Fiona Hefti and Carlo Janka. Their statements made it clear that people donate blood for a variety of reasons. Sandra Studer, for example, said “I give blood, because it cannot be manufactured artificially”. René Prêtre knows from personal experience as a doctor how important blood reserves are (see interview p. 15). Other blood donors shared their own individual motivations via the blood donation app. The various reasons they gave were posted on the campaign website.

You supported the Swiss Transfusion SRC campaign “Give blood – I’m doing it!” in 2013. What prompted you to take on this additional commitment? The fact that many of our ill or injured patients need blood to get back on their feet or in some cases even to survive their illness. The demands on a heart surgeon are very great. How does that leave room to work for other causes? I choose my other commitments carefully. On a very general level, I, like my colleagues, confront health issues which are not restricted to one discipline, issues which genuinely concern all of us. If I can make a difference somewhere, I get involved.

In this specific case, there is also the fact that regular use of blood donations or blood products is necessary in the course of my work. How would you describe your personal relationship to blood? It is a downright physical relationship! Because of my specialisation, I constantly come into contact with blood, both visually and with my hands. As you must know, we have to drain the blood from the heart during an operation so that we can open it and operate. We see the blood flowing through our transparent cannulae. We observe its colour and assess its consistency. The colour of blood, for instance, tells us something about the body’s oxygen supply and in some cases about whether the body’s condition is satisfactory. How many blood bags are needed for a “classic” heart surgery? There are several different categories of heart surgery, requiring different numbers of blood units to be on hand. One unit of stored blood is needed just to fill the machine when a heart-lung machine is used for a newborn or a young child. Frequently, two to four units of stored blood and human blood derivatives are needed to support coagulation in very complex surgeries. The second function of blood transfusions, which is perhaps not so widely known, concerns coagulation. Blood contains blood platelets and these are associated with coagulation factors, which can be concentrated for specific applications. Surgical procedures, and heart surgeries in particular, frequently require the use of these products, which are ultimately just as essential for life as are red blood cells.

There is a long tradition of blood donation in Switzerland. Why is that, in your view? Donating blood is an act of solidarity and generosity towards others on the part of the donor. In Switzerland, as in many other countries, evidence of this positive attitude has been seen for a long time. It is true that Swiss people tend to be rather cautious at first, but once they are convinced that action on their part – in this case, the donation of blood – serves a good cause, they are extremely generous. Do you believe that artificial blood will someday replace the ordinary blood bag in the operating room? That will depend on advances in the field of blood substitutes. Artificial blood is not yet being used in larger quantities. In my opinion, we are still a long way away from having blood substitutes replace conventional blood. That’s why it is important that people continue to donate blood in the future!
Giving blood in the London Bus

The effective measures carried out after World Blood Donor Day: just as in the previous years, two London Buses, travelling as mobile blood-donation sites, continued their tour through several regions of Switzerland well into August. They brought in nearly 2,000 blood donations, during what tends to be fairly scanty summer months. For the four regional transfusion services involved in the tour, the buses were helpful above all with respect to the acquisition of new donors: around half of the blood donations, i.e. almost 1,000, were from first-time donors.

The regional blood transfusion services were supported in this year’s tour by the Samaritans for the first time. The Samaritans took over the role of the former promoters, distributing flyers inviting people to donate in the bus and offering the opportunity to take part in a competition. This approach allowed prospective blood and blood stem cell donors to be registered at the same time.

Long-term measures

Although demand for blood declined in 2013 (see p. 6) and will probably keep falling in the years to come, the need for action on our part will endure, if we are to ensure that coming generations recognise that donating blood is a meaningful act of solidarity, and experience it as such. Until or unless there comes a time when blood can be artificially produced, we will continue to need people who donate blood.

It is primarily longer-term measures which generate sustainable effects with respect to ensuring that people remain sensitive to the need for donations. For that reason, it is important to Swiss Transfusion SRC to identify and implementing the ways and means to maintain a permanent presence, in addition to carrying out attention-grabbing temporary campaigns. The “schedule buttons” programmed in 2013 are one example of an appropriate medium. The owner of any website can add one of these buttons to his or her site, and thus display the current schedules for blood donation in their region. The buttons are available at blutspende.ch and on the blood donation app.

To encourage dissemination of the buttons, several regional blood transfusion services wrote to their local governments requesting them to add the buttons to their websites.

Teaching materials updated

The “Das Blut” teaching materials represent another longer-term measure. In 2013, Swiss Transfusion SRC worked with kiknet AG on the complete revision of this set of instructional materials, which has proven its value over years of use. The new workbook captures readers’ interest with a fresh new layout and specialised texts and illustrations assigned to three different levels; it has also been expanded to include a chapter on blood stem cells. All the teaching materials are available at the website das-blut.ch, which also offers an option to order the workbook. The new teaching materials are appreciated by the teaching community (see p. 17) and met with a great response: the website had been accessed 3,807 times by the end of the year and 13,050 orders had already been placed – despite the fact that only the German version is available so far. The positive response reinforces the decision to adapt the materials for French and Italian versions in 2014.

Give blood – we’re doing it!

What we began in 2013 is set to continue in 2014: building awareness for blood donation, with the support of “ambassadors” in the broadest possible sense of that word. Whether the source of encouragement is a celebrity or an unknown individual, organisations within the SRC family, companies, associations or public institutions – the more people who believe in the importance of blood donation speak up in support of it, the greater the end effect. Through their support, these ambassadors reinforce the activities of Swiss Transfusion SRC and the regional blood transfusion services. The aim, therefore, is a shift from “I donate blood” to “we donate blood”. With that, the slogan for 2014 is clear: “Blut spenden – das machen wir!” (Give blood – we’re doing it!).

School lesson on blood

It must have been about seven years ago that I saw the notice in an educational journal advertising the “Das Blut” instructional materials from Swiss Transfusion SRC. Since I tend to use multiple teaching resources, I ordered the materials. They represent an ideal complement and supplement to the classic school textbook.

What I particularly liked, right from the start, was that the materials cover aspects like myths about blood and related figures of speech: that provides an easy way to start the lessons! The structure, composition and texts are level-appropriate and child-friendly; you notice that it is the work of experienced educators right away. The three-level division of the material into easier, intermediate and difficult topics is helpful to us teachers as well. There are pupils in every class who have a particular affinity for the subject, and this allows their abilities to be fostered appropriately.

Our curriculum calls for a unit on the topic “blood and blood circulation”, and this is a topic that school children are very interested in. At this age – I teach Year eight – young people are very aware of their bodies and eager to learn about topics relating to them. For instance, to many of them, the fact that important medicines are produced from blood is new; most of them have never heard of autologous blood donation before either.

I often get questions that range far beyond the actual topic during the lessons. Or pupils talk about specific situations or experiences in their own families. That is a good sign; it shows that the pupils are engaging with the subject. One has to tread carefully though, almost every class has at least one person with a family member who has suffered from an acute form of cancer.

I think it is a bit of a pity that the section on blood stem cells has been given more prominence in the recent revision of the teaching materials. It is not always easy for pupils to distinguish between “blood” and “blood stem cells”. The two terms are very similar and confusing for some. The subject of blood groups and Rhesus factor and their inheritance is also a bit too complex for many pupils.

There is no doubt that we are treading sensitive ground in the educational field when we decide to use teaching materials produced by outside sources: I’m well aware of that. Depending on the topic, it can actually be quite problematic. I am careful not to explicitly encourage blood donation when I use the “Das Blut” teaching materials in my classes; it is enough that blood donation and the organisation involved are mentioned in the brochures.

“Blood is an interesting topic for young people. At this age they are very aware of their bodies.”

updated in 2013: the brochures “Blut spenden: Fragen und Antworten” and the instructional material “Das Blut”.
SBSC celebrated its 25th anniversary!

On 7 and 8 November 2013, over 200 guests celebrated 25 years of SBSC’s existence in Bern’s Zentrum Paul Klee. In addition to a variety of talks, guests heard donors and recipients of blood stem cells speak about their own experiences in a discussion moderated by Röbi Koller. Many were touched by the words of the patients and inspired to continue their efforts.

Over the years, all sorts of people have devoted great passion and energy to the cause of blood stem cell donation and the development of Switzerland’s registry. The anniversary celebration provided an occasion to look back over those years of dedication and thank everyone involved. The spotlight was on the future as well as the past, though, with the focus shifting to the changes which the next 25 years will bring in the blood stem cells field.

Start
Rudolf Schwabe, director of Swiss Transfusion SRC, launched the celebration with a screening of the new short film “1:0 gegen Leukämie” (1:0 against leukaemia). The video is a new marketing tool, one featuring blood stem cell recipients and donors. At the introduction of online registration and the relaxation of donor criteria in the past four years in particular have resulted in a large increase in the number of registrations.

Talking with those personally involved
The highlight of the first day was a panel discussion moderated by Röbi Koller’s question as to whether the donors who took part in the discussion indicated that they were satisfied with the existing anonymity requirement. The provision serves to protect everyone involved, in the view shared by Andreas Buser, senior consultant, blood transfusion centre of Basel, who, with specialists Bernard Chapuis and Catherine Nissen, augmented the discussion with background medical knowledge and experiences from their professional lives.

Donor-recipient anonymity
When recipients Stephanie Crast and Stephan Grossenbacher would certainly like to get to know the people who saved their lives, the donors who took part in the discussion with background medical knowledge and experiences from their professional lives. “How did you cope with that knowledge?” asked Röbi Koller. “During my time at the hospital I had to adhere to a strict daily routine, so I didn’t have too much time to dwell on things. That helped,” explained fire-fighter Stephan Grossenbacher. Stephanie Crast said that coping with the diagnosis was difficult, above all for those close to her: “Often I was the one providing comfort to my relatives.”

An aperitif followed by a delicious gala dinner rounded off the successful first part of the anniversary celebration, which was made possible in no small part by the generous support of several sponsors. The second part of the celebration was held the following day and was devoted to the future (see p. 26).
Nearly 50,000 registered donors

The milestone of 50,000 registered blood stem cell donors was nearly achieved in the year of the SBSC’s 25th anniversary. That puts within reach the interim target of 100,000 registrations by the end of 2020, set in the newly devised strategy.

Around 8,000 people registered as new blood stem cell donors in Switzerland in 2013. That is 1,600 more than in the previous year, a 20 per cent increase. Numerically, this represents the second-highest growth rate achieved so far. A total of 612 entries were withdrawn from the registry (396 in the previous year). So the Swiss Registry listed 49,304 registered blood stem cell donors at the end of the year under report.

With an average of just over six donors per 1,000 residents, Switzerland has risen considerably in the country ranking within just a few years. Nevertheless, there is still a lot of room to rise further. If SBSC does achieve its target of 100,000 in 2020, its place in the top ten is virtually assured.

Informational and tissue-typing events on site

The new registrations were achieved in part by means of various informational and tissue-typing events held at universities and businesses, but also by public drives initiated by private persons directly affected. The latter approach has proven particularly effective in the past at mobilising large numbers of people, and this was again the case in 2013: 300 people registered as new blood stem cell donors at a tissue-typing event organised by SBSC and relatives of a girl suffering from leukaemia. In the year under report, a total of 2,450 new registrations were acquired through events.

Improvements to online registration

As in past years, the major share of donor acquisition took place online. About 3,450 of the 8,000 new blood stem cell donors were registered via the Internet in the year under report. Improvement of the online registration procedure accounts for part of this growth: as of 2013, newly registered blood stem cell donors receive an email confirming their registration and a message informing them that all materials necessary for typing will be delivered to them through the mail. In addition to those materials, donors receive an informational brochure which was redesigned in the year under report.

Annual campaign “Am I your type?”

Recognising the importance of online registration for donor acquisition, and with an eye to a younger target group, the 2013 campaign focussed on the online sector. With the slogan “Am I your type?”, the campaign was designed to draw attention to blood stem cell donation and motivate people to become involved.

The word “type” referred to tissue types, which must match in blood stem cell donors and their recipients. The term also provided an opportunity to attract to the target group through wordplay however. A number of well-known personalities caused a stir one summer weekend, by announcing publically that their partner was not their type. The news, disseminated via Facebook and websites, caused speculation about the break-up of the private or professional relationships of several prominent couples, including Renzo and Ladina Blumenthal, Christina Surer and Martin Tomczyk and the comedian duo Cuche and Barbezat. The remarks were also publicised via e-boards at universities and businesses, to serve as longer-term marketing tools as in past years, the major share of donor acquisition took place online. About 8,000 new blood stem cell donors were registered via the Internet in the year under report. Improvement of the online registration procedure accounts for part of this growth: as of 2013, newly registered blood stem cell donors receive an email confirming their registration and a message informing them that all materials necessary for typing will be delivered to them through the mail. In addition to those materials, donors receive an informational brochure which was redesigned in the year under report.

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The denouement occurred the next day in the weeklies “Schweizer Illustrierte” and “L’Illustré”, as well as on the celebrities’ own fan sites. Martin Tomczyk, for instance, wrote: “Christina is my dream wife – just not my type. That is crucial for blood stem cell transplantation, e.g. for leukaemia patients. What is needed as many donors as possible!”

Focus on availability

Ensuring that a prospective donor is fully informed and understands the entire process before his registration is crucial for many reasons, first among them the aim of ensuring high availability: a person who knows when he registers what awaits him in the event of a donation is more likely to consent if and when the occasion arises.

Years may pass before a registered donor is contacted for a possible donation – if, indeed, this ever occurs. To minimise the number of requests which are refused, it is therefore important that potential donors be regularly reminded of their registration, and kept informed about SBSC’s activities. For this reason, in 2013 SBSC increased the frequency of the newsletter sent to all registered donors from once to twice a year.

Of the 239 donors contacted with a request for confirmatory typing (CT) in 2013, 40 people (16.7 per cent) refused for personal reasons (the 2012 figure was 16 per cent). A relatively high percentage continues to be ruled out for medical reasons: 43 people came under that category in 2013 (18 per cent).
Letters from donors and recipients
The requirement for total anonymity between blood stem cell donors and recipients continues to apply, but as of April 2013 one anonymous exchange of letters is permitted. The letters are sent via the registry, which verifies that they contain no names or information which could reveal the identity of either party. In the year under report, letters from eight recipients and three donors were submitted.

Simplified administration
The regional blood transfusion services (RBTS) are important partners for the acquisition of blood stem cell donors: they provide guidance and support to donors with regard to compatibility testing and a possible blood stem cell donation. The RBTS still maintain their own donor databases to some extent. In order to reduce administrative burden, there are plans to have these donor addresses centrally administered in the longer term. St. Gallen and Bern addresses were shifted over in 2012, those from Freiburg were added in the year under report and the transfer of the Lausanne data is currently underway.

Register expansion thanks to sponsors
The more potential donors there are in the registry, the greater the chance of finding a compatible donor for every patient. On the average, the costs for donor sample typing and setting up a new donor profile amount to about 220 Swiss francs. As expansion of the register is not publically funded, the SBSC can shoulder only a portion of the costs involved, these activities are dependent on third-party funds.

In 2013 the SBSC received financial support from numerous private and institutional sponsors, including several foundations (see p. 31). Those who provide funds are making crucial contributions to the continual acquisition of new donors.

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Record for search requests

SBSC initiated a search for a compatible unrelated donor for a patient in Switzerland 210 times in the year under report. That is more than ever before.

The number of searches for Swiss patients has risen continually in the past years. As recently as 2003 it was still at around 77, so the 210 searches in the year under report represent a three-fold increase in search numbers over the past decade.

One factor behind the increase is probably the rising number of searches launched for older patients. Not many years ago, searches for patients over the age of 60 were possible only in exceptional circumstances, but the age limit has since been raised to 65. As a result, in 2013, one in three patients for whom a search was initiated in Switzerland was over 60. This age group accounted for only a ten per cent share of searches in 2005. Another factor which has certainly contributed to the increase in searches is the acceptance of additional indications for a blood stem cell transplant.

The number of complex searches is continuing to rise because of improvements in the typing of tissue markers in patients and donors all over the world. The more precisely tissue markers are typed, the more complex the task of finding a compatible donor becomes. The chance of a successful transplant increases when the tissue match is optimal.

More requests and collections

In the past, it was not unusual for SBSC to experience large fluctuations in the other area of its search activity – tissue typing requests involving Swiss donors in connection with queries originating in this country or abroad. Since 2011, SBSC has recorded a continual increase in the numbers of requests received, and the same applies to collections performed. The number of requests in the year under report, 292, represents an eight per cent increase over the previous year. Four more collection procedures were recorded in 2013 than in 2012: a total of 31 blood stem cell collection procedures took place in the collection centres in Zurich, Geneva and Basel.

One of the factors allowing the rise in the number of collections in recent years is the increase in the number of registered donors (see p. 21). Moreover, tissue typing performed for today’s Swiss donors is far more in-depth than that performed several years ago, which also results in more requests and subsequently more collections.

High number of transplants

The number of transplants for Swiss patients also remained high in the past year: 112 initial and eight subsequent transplants were performed in the transplant centres in Zurich, Geneva and Basel. The total is only two transplants short of the record set in 2012 (see also chart, right).

Globally, the number of transplants is on the rise. The performance of the world’s one-millionth blood stem cell transplant was announced in late January 2013. In Switzerland, the trend is resulting in certain capacity bottlenecks in clinics and hospitals. Postponements result in yet additional scheduling difficulties for transplanting doctors. Postponements may be donor related, e.g. because additional medical tests have been ordered, or they may be necessitated by a deterioration in the condition of the patient.

SBSC takes on new tasks in follow-up of related blood stem cell donors

Under the Swiss Transplantation Act, blood stem cell donors must receive post-procedure care, and the status of their health must be monitored throughout their lives (follow-up). SBSC and SBST (Swiss Blood Stem Cell Transplantation) made an important contribution toward bringing this issue to the attention of national and international bodies, which resulted in recognition of follow-up for both related and unrelated donors.

At the same time, SBSC and SBST successfully advocated the standardisation of processes and data collection: in the past, countries or, rather, registries took different approaches to follow-up and collected data for their own use only. Thanks to the introduction of a standardised minimum data set in 2009 and an expanded one in 2011, uniform data are now collected, entered into an international database, and analysed.

In 2013, identical follow-up processes for related and unrelated donors were introduced in Switzerland as well. In the past, health checks on related donors have been performed by the collection centres. In the future, the collection centres will be responsible for only the initial check (one month after the donation). Starting from the second check (six months after donation), SBSC will be responsible for coordinating and conducting the checks. The transfer of this new task to SBSC is underway.
Well equipped for the future

The SBSC anniversary event held in November 2013 looked back over the past 25 years, but it also looked forward: where will advancements in blood stem cell transplantation take us in the next 25 years?

On the first day of the event held in Bern’s Zentrum Paul Klee, the exciting history of SBSC, from its establishment in 1988 to 2013 (see p. 18), took centre stage. The second day the spotlight was on the future: how will this still-young science evolve?

What should individual countries, or registries, focus on now to assure the best position in 25 years time? Four factors likely to have a major influence on the future of blood stem cell transplantation emerged:

**Speed**
It is apparent already that doctors want to make decisions as quickly as possible. The pressure on registries to act swiftly will probably increase. So they will be improving their IT systems and will have to establish the technical bases allowing faster action and decisions.

**Quality**
Improvement in the quality of donor typing is called for. Transplanting doctors want as much information about potential donors as possible, in order to make the best choices. There was a time when donor blood type was not a priority; now there are indications that blood type can also influence a blood stem cell transplant result. So in the future the emphasis is likely to be on the quality of donor typing as well as the quantity of registered donors.

**Typing**
Typing is not the only quality parameter though: quality of service also has a role to play. The more effectively a register’s internal processes are structured, the more quickly and professionally it can provide transplanting doctors with the requested data.

**Intelligent growth**
About 22 million blood stem cell donors are now registered worldwide. In Germany, approx. five per cent of the population has registered. It is probable that at a certain percentage a degree of saturation will become evident in society; recruiting new donors beyond that point will involve a considerably greater resource outlay. In countries like the USA and Germany, signs of a change in the trend are already appearing; instead of trying to recruit as many new donors as possible, the focus has shifted to acquiring younger donors, the most promising target group from the medical perspective. Canada has already reacted as well: only men under 35 are being recruited there, although getting that message across has proven difficult at times.

**Research**
At the European level, the EBMT (European Society for Blood and Marrow Transplantation), in which Switzerland is very active, accomplishes a great deal. Nonetheless, considerably more could be achieved – in the areas of healthcare research and demography for instance.

The future also holds challenges in store for us in many areas. SBSC will face them. Through our efforts and those of our partners, the vision of finding a matching donor for each patient is drawing closer, step by step.

The search for the compatible donor

The transplanting doctor requests my department to perform a search for an unrelated donor for a Swiss patient. The patient data relevant to the search are sent to us on standardised forms. The National Reference Laboratory for Histocompatibility (LNRH) in Geneva sends us what is called the HLA profile of the patient. The profile identifies certain tissue markers; how the correspondence of these markers between donor and patient determines whether a blood stem cell transplant can succeed.

We start the actual search by sending the patient’s HLA markers to the over 70 registries maintained throughout the world. We are connected to almost half of them via an information exchange system, allowing us to electronically transmit the data to them directly. Every registry then compares the transmitted data with its database of donors. By the next day most of the registers will have responded with a list of their most suitable donors. How many possible donors we receive depends on the patient’s tissue type: at most a very few suitable donors will be found for a patient who has rare HLA markers. In such cases we are reminded over and over again just how valuable every single registration of a blood cell donor really is. Fortunately, there are also search requests which yield over 100 suitable donors.

“...the number of possible donors we find depends on the patient’s tissue type.”
Two million new donors

The number of registered blood stem cell donors worldwide is now at over 22.5 million – with two million new donors added last year alone.

There are 73 different blood stem cell donor registries in 54 countries throughout the world. Overall, the average yearly increase in donor numbers is just under a million new donors each year, but the growth curve has been substantially steeper in recent years. In 2005, the world’s ten-millionth donor registration was an important milestone to celebrate; seven years later, the figure had already doubled.

The number of registered blood stem cell donors differs greatly from one continent to another though: almost half of the world’s registered donors are in the USA, with Europe accounting for almost as many. All of the other countries combined account for a solid ten per cent.

More bone marrow donations

We continue to see a rise in the number of blood stem cell donations (due to the complexity of compiling the data, the most recent figures available are for 2012): 15,114 blood stem cell donations were carried out worldwide (up six per cent). The number of bone marrow donations increased by ten per cent to 4,126 in 2012, and the number of peripheral blood stem cell donations was up by five per cent to 10,988. Every fourth procedure collecting blood stem cells was a bone marrow harvest. Donation of peripheral blood stem cells continues to remain the most frequent form of donation.

Global search for the right donor

The two charts on this page (bottom, right) help demonstrate how essential optimal networking among the registries is. Of the 582 blood stem cell donation procedures performed in Switzerland since 1992, only twelve per cent were destined for Swiss patients. In the other 88 per cent of cases the cells were sent to transplant centres abroad. One in five donations went to Germany for instance.

Countries of origin of blood stem cells destined for Swiss patients present an even more striking picture: of the 1,138 transplants performed in Switzerland since 1988, 94 per cent involved donations from abroad.

The number of registered blood stem cell donors worldwide, in millions (source: BMDW)
**Safe blood for Africa**

Enhancing the safety of blood transfusion in Africa An exciting Swiss project came a big step closer to that goal in the year under report.

Each day, people in developing countries, particularly in the sub-Saharan region, die due to the inadequacy of the blood supply. The development of technologies for pathogen inactivation of whole blood has been very rare in this country for many years, but the Swiss Red Cross in conjunction with external partners have been very active in Africa, where only 40 per cent of the whole blood is still used in around 70 per cent of all transfusions. In Geneva in collaboration with external partners SRC and the regional blood transfusion service in Geneva, the project is being realised by Swiss Transfusion SRC and the regional blood transfusion service in Geneva in collaboration with external partners.

Many transfusions with whole blood

Blood transfusions in many African countries differ in key respects from those performed in industrialised nations. While whole blood transfusions have been very rare in this country for many years, whole blood is still used in around 70 per cent of all transfusions in Africa. The large majority of these patients were infected with HIV or hepatitis C in the 1980s or early 1990s. Last year, the fund paid out benefits in a total amount of 557,400 Swiss francs (previous year: 623,000 Swiss francs) and the financial contributions helped alleviate the financial situation of 30 HIV patients and their families and of two people infected with hepatitis.

**Solidarity fund**

The Swiss Red Cross has paid tribute to the solidarity between blood product recipients and injured parties since 1993 through a solidarity fund set up specifically for that purpose. Provision of benefits from the fund is a voluntary undertaking as neither Swiss Transfusion SRC nor the Swiss Red Cross can be held responsible for the residual risk associated with blood products. The financial contributions are intended to ease the suffering of people who have been infected with dangerous diseases through blood products. The large majority of these patients were infected with HIV or hepatitis C in the 1980s or early 1990s. Last year, the fund paid out benefits in a total amount of 557,400 Swiss francs (previous year: 623,000 Swiss francs). These payments helped alleviate the financial situation of 30 HIV patients and their families and of two people infected with hepatitis.

**Accounts 2013 Solidarity Fund Blood**

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expenditure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounts</td>
<td>557,400</td>
<td>622,900</td>
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<tr>
<td>Staff costs</td>
<td>20,224</td>
<td>21,073</td>
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<td>Material expenditure</td>
<td>37,586</td>
<td>35,158</td>
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<td>Total expenditure</td>
<td>616,209</td>
<td>679,131</td>
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<tr>
<td>Income</td>
<td></td>
<td></td>
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<tr>
<td>SRC, Humanitarian Foundation</td>
<td>900,000</td>
<td>900,000</td>
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<tr>
<td>Total income</td>
<td>900,000</td>
<td>900,000</td>
</tr>
<tr>
<td>Surplus</td>
<td>284,791</td>
<td>220,869</td>
</tr>
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</table>

**Financial position at 31.12.2013**

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2012</th>
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</thead>
<tbody>
<tr>
<td>Assets 1 January 2013</td>
<td>1,636,894</td>
<td></td>
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<tr>
<td>Surplus 2013</td>
<td>284,791</td>
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</tr>
<tr>
<td>Assets 31 December 2013</td>
<td>1,921,685</td>
<td></td>
</tr>
</tbody>
</table>

**Positive result for the year**

The annual financial accounts of Swiss Transfusion SRC close 2013 with a slight surplus of around 30,000 Swiss francs.

One of the major functions of Swiss Transfusion SRC is that of securing the blood supply in Switzerland in collaboration with the regional blood transfusion services. This activity is not directly supported from public funds, though the Humanitarian Foundation of the Swiss Red Cross provides financial support for such projects.

The second major function is the management of Switzerland’s blood stem cell donor registry, in conjunction with the recruitment of blood stem cell donors and coordination of donations for patients in this country and abroad. Swiss Transfusion SRC itself is able to shoulder only a portion of the high costs involved in recruitment and tissue typing. Therefore, Swiss Transfusion SRC is deeply grateful for financial contributions from organisations or private individuals. In the year under report, Ernst Göhner Foundation, the Promedica Foundation, the Ossesmi Foundation, and LINK Institute were among those who supported the expansion of the registry with a donation.

**Decrease in blood procurement**

In the blood supply area, the 13 regional blood transfusion services are responsible for actually procuring the blood. They publish their results in their own annual reports and are reporting a combined annual turnover of a solid 160 million Swiss francs. Swiss Transfusion SRC’s role in this area is that of securing the national reserve and ensuring that supplies are appropriately distributed among the regions. The fall in the demand for blood in Switzerland (see p. 6) is reflected in the financial results: a seven per cent decrease in both earnings and expenses is reported for 2013 compared to the previous year.

**Searches and transplants showing increase**

In the blood stem cell area, revenues associated with donor searches and transplants comprise the biggest income category, with 10.9 million Swiss francs. These revenues consist of amounts paid by insurance funds (Swiss patients) and payments from foreign partner registries (foreign patients). These revenues rose in comparison to the previous year (up five per cent) once again, as a result of the increased number of search requests and the greater number of transplants performed for patients both in Switzerland and in other countries (see p. 24). At 5.3 million Swiss francs, expenditure associated with donor searches and transplants is also above that of the previous year (4.7 million Swiss francs). This category includes expenses for more detailed HLA typing in connection with formal search requests originating in this country and elsewhere, but also expenses for arranging collection and transport of transplant material and those associated with follow-up activities.

Slightly increased personnel budget

Swiss Transfusion SRC’s staffing budget grew from 39.55 to 41.65 full-time equivalents (FTE). This is primarily linked with the high workload in the SBSC area of activities. Personnel costs increased by a solid two per cent over the previous year, to five million Swiss francs.

**Slight surplus**

After use and allocation of fund and organisation capital, the 2013 results show a slight surplus of around 30,000 Swiss francs (previous year: 55,000 Swiss francs), which will be allocated to the free operating funds.

The profit and loss statement and the balance sheet were audited according to the Swiss GAAP FER standards by the fiduciary firm Ernst & Young AG and found to be correct in all parts. The complete, audited annual financial statement, as well as the auditor’s report, can be ordered from Swiss Transfusion SRC.

**ZEWO seal of quality**

The umbrella organisation Swiss Transfusion SRC and the regional blood transfusion services are all charitable non-profit organisations. Most of the regional blood transfusion services are foundations; Beri’s – like the umbrella organisation – chose to take the legal form of a charitable public limited company. Swiss Transfusion SRC bears the ZEWO seal of quality.
### Balance sheet at 31 December

<table>
<thead>
<tr>
<th>in CHF</th>
<th>2013</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid assets</td>
<td>876,244</td>
<td>1,389,221</td>
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<tr>
<td>Securities</td>
<td>16,785,481</td>
<td>15,553,397</td>
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<tr>
<td>Accounts receivable</td>
<td>2,908,645</td>
<td>2,810,676</td>
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<td>Other receivables</td>
<td>161,464</td>
<td>150,369</td>
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<tr>
<td>Accruals</td>
<td>504,578</td>
<td>445,663</td>
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<tr>
<td>Current assets</td>
<td>21,236,412</td>
<td>20,329,326</td>
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<tr>
<td>Movable tangible assets</td>
<td>195,667</td>
<td>295,487</td>
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<tr>
<td>Intangible fixed assets</td>
<td>633,802</td>
<td>356,853</td>
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<tr>
<td>Fixed assets</td>
<td>829,469</td>
<td>652,340</td>
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<td>Total assets</td>
<td>22,065,881</td>
<td>20,981,666</td>
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<td>Accounts payable</td>
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<td>Other payables</td>
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<td>719,890</td>
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<td>Deferrals</td>
<td>4,355,546</td>
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<td>Short-term liabilities</td>
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<td>3,648,115</td>
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<td>Long-term provisions</td>
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<td>1,034,789</td>
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<td>Long-term liabilities</td>
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<tr>
<td>Fund capital</td>
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<td>9,464,272</td>
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<td>Share capital</td>
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<td>Legal reserves</td>
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<td>840,130</td>
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<tr>
<td>Subtotal shareholders’ equity</td>
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<td>2,840,130</td>
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<tr>
<td>Surplus free and operating funds (reserves)</td>
<td>4,119,360</td>
<td>3,939,419</td>
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<tr>
<td>Annual result</td>
<td>30,492</td>
<td>54,941</td>
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<tr>
<td>Organisation capital</td>
<td>6,989,982</td>
<td>6,834,490</td>
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<tr>
<td>Total liabilities</td>
<td>22,065,881</td>
<td>20,981,666</td>
</tr>
</tbody>
</table>

### Statement of accounts

<table>
<thead>
<tr>
<th></th>
<th>2013</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income from donations, other contributions</td>
<td>2,500,796</td>
<td>2,166,970</td>
</tr>
<tr>
<td>Income from public service</td>
<td>5,830,762</td>
<td>6,292,539</td>
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<tr>
<td>Income from donor searches and transplants</td>
<td>10,939,393</td>
<td>10,412,524</td>
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<tr>
<td>Commercial income</td>
<td>0</td>
<td>3,510</td>
</tr>
<tr>
<td>Income from services</td>
<td>748,859</td>
<td>771,057</td>
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<tr>
<td>Project contributions charities, non-profit organisations</td>
<td>766,498</td>
<td>1,487,409</td>
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<tr>
<td>Operating income</td>
<td>21,786,328</td>
<td>21,134,000</td>
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<tr>
<td>Expenditure on national assigned duties</td>
<td>-4,460,901</td>
<td>-4,949,430</td>
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<tr>
<td>Cost of donor recruitment and care</td>
<td>-1,035,191</td>
<td>-1,231,034</td>
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<tr>
<td>Cost of donor searches and transplants</td>
<td>-5,315,602</td>
<td>-4,680,256</td>
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<tr>
<td>Expenditure materials and services</td>
<td>-1,957,828</td>
<td>-2,634,611</td>
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<tr>
<td>Staff costs</td>
<td>-5,043,367</td>
<td>-4,912,745</td>
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<tr>
<td>Other operating result</td>
<td>-1,767,656</td>
<td>-1,787,461</td>
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<tr>
<td>Expenditure – administration, consulting, IT</td>
<td>-1,480,260</td>
<td>-1,347,452</td>
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<tr>
<td>Depreciation</td>
<td>-252,017</td>
<td>-251,213</td>
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<tr>
<td>Total operating expenditure</td>
<td>-21,252,881</td>
<td>-21,794,202</td>
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<tr>
<td>Operating result</td>
<td>533,447</td>
<td>-660,202</td>
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<tr>
<td>Financial result</td>
<td>860,881</td>
<td>1,247,867</td>
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<td>Result without fund</td>
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<td>594,360</td>
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<td>Transfer to fund capital</td>
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</tr>
<tr>
<td>Use of fund capital</td>
<td>1,990,234</td>
<td>1,456,714</td>
</tr>
<tr>
<td>Total change in fund capital</td>
<td>-1,338,776</td>
<td>-496,064</td>
</tr>
<tr>
<td>Result before change in organisation capital</td>
<td>155,492</td>
<td>98,296</td>
</tr>
<tr>
<td>Transfer to organisation capital</td>
<td>-125,000</td>
<td>-510,000</td>
</tr>
<tr>
<td>Use of organisation capital</td>
<td>0</td>
<td>466,645</td>
</tr>
<tr>
<td>Change in organisation capital</td>
<td>-125,000</td>
<td>-43,355</td>
</tr>
<tr>
<td>Total liabilities</td>
<td>30,492</td>
<td>54,941</td>
</tr>
</tbody>
</table>
Daniela Jakab knows: “Without blood transfusions, I wouldn’t have survived the births of my two daughters!” She is deeply grateful to the blood donors, whom she does not know. There is nothing unique about the blood loss or transfusions supplied in this mother’s case. In Switzerland, over 1,000 units of donated blood are needed every day to guarantee the supply for patients. Many of these patients’ survival is only thanks to the individuals who voluntarily donate blood, thereby demonstrating their solidarity with others.

Every person who registers as a blood stem cell donor is also helping to save lives though. The people who benefit from blood stem cell donations are chiefly those who suffer from a malignant blood disease like leukaemia. The search for the matching donor is very difficult. Someone who registers as an unrelated donor takes part in a blood stem cell donor gives hope to the people affected and increases their chances of finding the appropriate donor. Therefore, a special thanks goes out to the currently almost 50,000 registered blood stem cell donors!

The willingness on the part of others to donate is of incalculable value for blood and blood stem cell recipients, but so are the efforts and dedication of a great many other people, both known and unknown. High on the list are volunteer activities like those of the Samaritans. Without their help, most of the mobile blood drives would not be possible. Swiss Transfusion SRC greatly appreciates these dedicated efforts and welcomes every contribution with pleasure!
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