

LSBT
ANNUAL
REPORT
2013-2014

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Foreword from the President

The year saw two highly successful congresses in Amsterdam and Kuala Lumpur. 2357 delegates attended the Amsterdam Congress and 986 the one in Kuala Lumpur. Thanks go to the two Congress Presidents, Professor Ellen van der Schoot and Dr Yasmin Ayob, and their teams and to everyone who contributed to this great outcome. The contribution of Martin Olsson, Scientific Secretary, for his efforts in coordinating the development of the scientific programmes must also be acknowledged.

The Society finances remain in excellent condition with a further significant surplus generated during the year. Consistent with the approach agreed with the Dutch tax authorities during 2011, the surplus was transferred to the ISBT Foundation.

The re-establishment of the ISBT Foundation was completed during the year. This now provides an effective and tax efficient mechanism to manage financial surpluses. The Foundation is managed by a Board comprising 5 members. 3 of the 5 are also members of the Board of ISBT. The Standing Committee of the Academy acts as the advisory committee to the Foundation Board. Together these arrangements ensure that the Foundation activities align effectively with those of the Society. The financial position of the Foundation is now strong and will enable an expansion of Academy activities in the years ahead.

Considerable progress has been made with the development of the e-Portal. This will be formally launched during the Congress in Seoul in June 2014. We continue to work closely with Multilearning to extend the range of educational opportunities provided through the portal. Webcasts have been added from the two Congresses held during 2013. These are often associated with learning quizzes. A trial of e-Posters for selected abstracts will be undertaken for the Seoul Congress in June 2014. In addition the e-portal contains the library of Guidelines and Standards which was launched last December at the Kuala Lumpur Congress. Access to the e-portal will continue to be made available to members free of charge. The Board is also considering ways by which some, or all, of the content might be available to non-members for a fee. This will provide an additional revenue stream for the Society and potentially be a useful mechanism to increase awareness of the Society activities with a consequent increase in membership numbers.

A Scientific Officer has been appointed to coordinate the activities of the Academy and to work with the Working Parties and others to develop further content for the e-Portal.

Work has begun on a review of the Code of Ethics. The Standing Committee on Ethics has been re-established and will take responsibility for the review with support from a number of observers from partner organisations. The Code of Ethics is an important document for the Society. The Board of Directors has provided direction to the Standing Committee for the review. These include a clear statement that the primary responsibility of Blood Services is to provide appropriate products for patients and that the commitment to Voluntary Non-Remunerated Donation as the preferred and most appropriate source of blood and plasma should be retained. The review will likely take around two years. Information on progress will be made available to the wider membership and an opportunity will be provided for consultation on any proposed changes prior to the final version being tabled at the General Assembly for approval.

A staff performance and remuneration framework has been developed and implemented. This initiative was undertaken with the assistance of the Hay Group in Amsterdam. The Central Office remains small. The new framework will ensure that remuneration packages are appropriate, affordable and properly reflect the marketplace in the Netherlands.

This will be my final report as President of the Society. It has been a busy and enjoyable two years. The new Statutes and By-Laws have been implemented, Governance systems improved and a good start made in the development of an e-learning platform. I would like to take this opportunity to thank the members of the Board of Directors and the team at Central Office for their considerable support and assistance and to wish Celso Bianco all the best as he prepares to take over the reins and move the Society forward during the year.

Peter Flanagan
President



Foreword from the Secretary General

This report covers the period from April 1 2013 to March 31 2014. The main activities of the Society in that period are listed below.

- Two regional congresses were held in 2013: one in Amsterdam, The Netherlands in June; the other in Kuala Lumpur, Malaysia in December. Many thanks to Ellen van der Schoot and Yasmin Ayob and their teams for organising two such successful congresses. Both congresses were highly rated for their scientific programmes and again thanks to Martin Olsson and the teams he worked with.
- Ellen van der Schoot was appointed as the new Scientific Secretary to replace Martin Olsson, and will assist Martin with the scientific programme of the London 2015 as part of the hand-over process.
- Following a bidding process, the ISBT Board awarded the 2016 International Congress to Dubai, UAE.
- In 2013/14 the following awards were made. The ISBT Award to Cees van der Poel (Netherlands), Henk Reesink (Netherlands), Cecilia Tan (Singapore), and Che-Kit Lin (Hong Kong). The Vox Sanguinis Best Paper Prize to Yver et al. for their paper on trials of a human recombinant anti-RhD with improved FC RIII engagement.
- An e-learning portal was developed on the ISBT website and many of the lectures of the Amsterdam and KL congresses are available to ISBT members as webcasts. One session in KL was streamed live to members. The e-portal also contains the ISBT library of guidelines. The e-portal will continue to be developed with the aim of providing e-learning modules in the future.
- The ISBT Academy supported 18 activities in 15 countries (see report of the Academy Standing Committee).
- ISBT membership increased during 2013/14 to 1447 members. Membership fees were unchanged.
- During the General Assembly in Amsterdam, the new statutes and by-laws of the Society were accepted by the membership.
- The Foundation of the ISBT was re-established in 2013 with the Standing Committee for the Academy as its Advisory Committee (see report of the Foundation).
- Vox Sanguinis had another successful year. The ISBT Science Series was reconstituted in a new format, with all published reviews and papers now being subjected to peer review (see report of Vox Sanguinis Standing Committee).
- ISBT supported the Global launch of World Blood Donor Day 2013, hosted by France.
- The 14 ISBT Working Parties continued to be active throughout 2013/14. The ISBT Board agreed the establishment of a new working party, the Immunohaematology Working Party, which will be launched at Seoul 2014.
- The ISBT Board agree that the Society could employ a Scientific Officer in the Amsterdam Office, and an appointment will be made in 2014.

Geoff Daniels
Secretary General



Board of Directors

July 2012 – June 2014

Executive Committee:

President	Peter Flanagan, New Zealand
President Elect	Celso Bianco, USA
Senior Vice President	Roger Dodd, USA
Junior Vice President	Diana Teo, Singapore
Past President	Silvano Wendel, Brazil
Secretary General	Geoff Daniels, UK
Treasurer	Steve Morgan, UK

Members of the Board representing WHO Regions:

Africa	Bridon M'baya, Malawi
Northern Americas	Amalia Bravo Lindoro, Mexico
Southern Americas	Oscar Torres, Argentina
Eastern Europe	Eugene Zhiburt, Russia
Western Europe	Claudio Velati, Italy
Eastern Mediterranean	Salwa Ibrahim Hindawi, Saudi Arabia
South East Asia	Neelam Marwaha, India
Western Pacific	Erica Wood, Australia
	Masahiro Satake, Japan

Membership

Membership 2013 – 2014

1. TOTAL MEMBERSHIP PER END OF MEMBERSHIP YEAR *

	2005	2006	2007	2008	2009	2010	2011-12	2012-13	2013-14
INDIVIDUAL	805	987	1205	1343	1422	2030	1680	1219	1354
AFFILIATED	27	23	23	18	22	17	16	14	17
EXEMPT	14	18	30	42	69	84	49	55	55
HONORARY	25	23	24	23	27	24	22	22	21
TOTAL:	871	1051	1282	1426	1540	2155	1767	1310	1447

* Until 2010 ISBT membership years ended on 31 December.

From 2011 on, the membership year runs from 1 April until 31 March of the next year.

The membership year 2011 was a longer year, because it ran from 1 January 2011 until 31 March 2012.

2. INDIVIDUAL MEMBERSHIP PER WHO REGION PER END OF MEMBERSHIP YEAR:

	2005	2006	2007	2008	2009	2010	2011	2012-13	
AFRICA	25	38	41	33	59	51	50	43	49
AMERICAS	206	220	244	267	252	287	310	287	284
EASTERN MEDITERRANEAN	29	55	71	77	85	127	78	47	61
EUROPE	395	474	571	597	719	819	841	566	637
SOUTH EAST ASIA	43	56	88	117	86	81	76	58	65
WESTERN PACIFIC	107	144	190	252	221	665	325	218	258
TOTAL	805	987	1205	1343	1422	2030	1680	1219	1354

Congresses

- 23rd Regional Congress of the ISBT, Amsterdam, the Netherlands 2013
- 24th Regional Congress of the ISBT, Kuala Lumpur, Malaysia 2013

23rd Regional Congress of the ISBT, Amsterdam, the Netherlands 2013



Jan Willem Smeenk, NVB Treasurer

The 23rd Regional congress of the ISBT was held in Amsterdam, the Netherlands. The venue was Amsterdam RAI International Convention Centre. Although this year's Amsterdam ISBT congress was a regional one, it was indeed truly international.

Congress statistics

No of accepted abstracts	790
No of participants	2357
No. of acc. persons	62
No. of booth Personnel	887
Total participants	3306
No. of exhibiting companies	71

181 speakers took part in 48 sessions. Almost 800 posters from 67 countries were presented. With 71 exhibitors and 887 exhibition staff, the exhibition attracted a lot of visitors. Congress facilitator MCI - again - ensured the smooth running of the conference.

The ISBT congress app found its way to many smartphones and proved to be practical and easy to use. The use of social media was almost non-existent. A sign, maybe, that those working in blood transfusion are a sociable group of people who like talking to other people better than to a machine. And with that in mind, it bears no surprise that already on Sunday, the opening ceremony and welcome reception attracted a lot of delegates; and not only those who attended the ISBT Academy earlier that day.

With over 900 participants the congress party in the Amsterdam Maritime Museum was a great success. The energetic cover band made sure that all calories taken in at the buffet vanished into thin air by the end of the party. The parallel sessions were organised in a number of tracks, offering topics from basic research to clinical studies and sharing of best blood bank practices. These tracks, Clinical Transfusion Medicine, Donor Health & Safety, Immunohaematology, New Cellular Therapies and Transfusion Technology and Quality, ensured that everyone could find sessions to his or her liking. The Scientific Committee succeeded in getting in speakers from neighbouring fields of science as well, introducing

new knowledge, views and methods into the realm of transfusion medicine.

All tracks included educational sessions as well. Those new in blood transfusion medicine and blood banking could easily pick up the important issues and trendy topics by attending a series of educationals.

The plenary session on Clinical studies in transfusion medicine was linked to the Lancet series on transfusion medicine, with speakers discussing current practice and the challenges for the future. Tim Goudnough discussed the use of blood, Simon Stanworth clinical trials on





platelets, and Lorna Williamson talked about challenges in management of the blood supply:

Threats to blood safety and blood provision proved to be a stimulating plenary session with diverse topics: Ab Osterhaus gave an overview of threats, specifically viral, from the environment, Andreas Greinacher focused on blood safety and provision, and Gustaf Edgren discussed threats from neurodegenerative diseases - like dementias - on the blood supply.

The final plenary session Great Science (hot topics & breaking news) on Wednesday morning was extremely well attended. Three eminent speakers - Nobel Prize laureate Bruce Beutler (Toll-like receptors), Polly Matzinger (the danger model), and Elisabeth Sphall (cord blood engraftment) - kept the audience captivated until the end.

With the handing over of the Talking Stick from the congress president Ellen van der Schoot back to the ISBT president Peter Flanagan, this wonderful congress ended. It will hopefully linger on in the memory of the delegates for a long time as a conference where they learned a lot, met old friends and made new ones.



24th Regional Congress of the ISBT, Kuala Lumpur, Malaysia 2013



Yasmin Ayob, Congress President

The 24th Regional Congress of the ISBT was held in conjunction with the 6th National Transfusion Medicine Conference in Kuala Lumpur, 1-4 December 2013. The venue was the Kuala Lumpur Convention Centre at the heart in the vicinity of twin tower which provided a backdrop to the congress.

Congress Statistics

No of accepted abstracts	352
No of participants	986
No. of booth Personnel	424
Total participants	1410
No. of exhibiting companies	46

The ISBT Academy Day consisted of 2 tracks on Transfusion Transmitted Infectious Disease and Blood Donors. These were followed by a lively session on Steps in Getting a Paper/Abstract Accepted, which benefited participants who wished to submit abstract for future congresses or get their work published. The afternoon sessions looked at quality, haemovigilance, immunohaematology and platelet immunology.

The day ended with the opening ceremony, which was attended by his Excellency the Deputy Minister of Health of Malaysia, Dr Hilmi Yahaya. Cecilia Tan and CK Lin were awarded with the ISBT Awards for their contribution to blood transfusion. With the handing over of the talking stick from the ISBT president to the Congress President the congress officially began. The guests were then given a taste of Malaysian culture with traditional dances and colourful costumes.



The next day, the parallel sessions discussed among other things, improving patient outcome, genomics and transfusion transmitted infections. The first plenary was all about red cells. Geoff Daniels gave an interesting view on the myths of blood group which was matched equally by Jill Storry's presentation on five new blood groups which demonstrated the tremendous amount of work that goes behind the discovery of these blood groups.

The days that followed were filled with interesting and informative talks on various aspect of clinical transfusion, organisation and management of national blood programmes, arbovirus, haemovigilance, blood component, new approaches towards manufacture of plasma derivatives, stems cells, biobanking which includes a discussion on accreditation of these facilities. Donor health and safety, donor vigilance and understanding donors through surveys and profiling seroconvert donors were discussed in the donor sessions.

The granulocytes sessions covered topics on laboratory methodologies, population studies and clinical significance of granulocyte immunology. Young scientists had the opportunity of attending a wet workshop on granulocyte prior to the congress. The final plenary consisted of



presentations on approaches to estimate infectious risks estimation and surveillance, transfusion safety in hospitals and looking what is new in TRALI.

There were 352 abstracts from 41 countries, of which 266 (76%) were accepted for poster presentations, 55 (16%) were selected for oral presentations. The poster session was well attended with food and drinks served which makes lively discussions.

Marvin the MC entertained us throughout the congress banquet. The delegates wore batiks in their own style and there was the opportunity for the delegates to try their hands at traditional Malaysian crafts e.g. working with pewter and batik painting. There was dancing and performances but the bangarra dance by Peter Flanagan, the ISBT president topped it all. It was really good fun.

The scientific programme was a huge success and most sessions were well attended with standing room only. Feedback was positive. The 48 invited speakers from 18 countries, together with the venue and the food contributed to the success of the Congress.

Financial Summary



Steve Morgan,
Treasurer

The financial year ended 31 March 2014 saw ISBT hold two successful regional congresses, in Amsterdam and Kuala Lumpur. The financial surpluses generated by these events allowed the society to achieve an overall surplus of close to €0.4m. In order to avoid payment of Dutch corporate income tax, the Society will transfer that surplus to the ISBT Foundation, for investment in key education and development projects. At the end of March 2014, ISBT and the ISBT Foundation have healthy cash balances of €3.0m and €0.2m. respectively.

Revenue

The Amsterdam Congress realised an unexpectedly high surplus of €383k, and Kuala Lumpur achieved a surplus of €121k, after accounting for the fees paid to congress organiser MCI Amsterdam, and the amount shared with the local organising committees (40%).

Individual ISBT membership fees rose from €128k to €137k (before adjusting for VAT), reflecting in part the occurrence of two congresses rather than one. The membership has slightly increased since 2012 to 1,447.

The reduced budget for 2014-15 reflects the instruction to ISBT by the Dutch tax inspector to charge VAT on membership contributions.

Corporate member fees rose from €112k to €144k with the acquisition of a fifth corporate partner, Immucor. The budget for 2014-15 assumes a full year's revenue from the five partners.

Royalties from Vox Sanguinis increased slightly to €236k, but advertising income (Transfusion Today) fell markedly from €70k in 2012-13 to €43k for the year under review. The merger of a number of global suppliers, combined with a reduction in marketing budgets has had a significant impact on demand for advertising space. The impact was mitigated by the signing of a new agreement with the Society's printer, which together with lower mailing costs enabled a reduction in Transfusion Today expenditure of €17k. ABN Amro bank interest income also fell, commensurate with lower long term interest rates.

Expenditure

Salary costs rose by €26k, as the Society implemented

revised staff terms and conditions with the help of the Hay Group, and engaged temporary support to develop a library of international guidelines and standards. The new pay structure is considered to be more stable, and equitable for the staff employed. The new post of Scientific Officer was appointed to in May 2014.

Travel and meetings costs fell significantly (€56k). The 2013-14 Board meetings took place around the two regional congresses.

Professional fees fell by €8k, largely due to lower legal costs offset by the work commissioned with the Hay Group on the Society's staff terms and conditions. Promotion costs, which cover the cost of shipping stands and materials to congresses fell by €48k. ISBT only attended the AABB meeting in Denver in 2013, rather than the planned two events. In addition, the Society completed its history project in 2013.

Website development and membership database consultancy costs of €24k were incurred, with a significant expansion in website development activity planned in 2014-15, part of ISBT's communication strategy. Other costs showed a significant increase from €41k in 2012-13 to €73k this year, due to the inclusion of a provision of €29k for non-recoverable VAT in accordance with the tax inspector's summary conclusions.

Finally, 2013-14 was the first year in which ISBT academy expenditure moved entirely to the accounts of the ISBT Foundation.

Copies of the 2013-14 full financial summary are available from the ISBT Central Office.

Reports from ISBT Working Parties

- Working Party on Apheresis
- Working Party on Blood Supply Management
- Working Party on Cellular Therapies
- Working Party on Clinical Transfusion
- Working Party on Donors and Donation
- Working Party on Global Blood Safety
- Working Party on Granulocyte Immunobiology
- Working Party on Haemovigilance
- Working Party on Immunohaematology
- Working Party on Information Technology
- Working Party on Platelet Immunobiology
- Working Party on Quality Management
- Working Party on Rare Donors
- Working Party on Red Cell Immunogenetics and Terminology
- Working Party on Transfusion Transmitted Diseases

Working Party on Apheresis



Hans Vrieling, Chairperson

1. Chairperson and committee

Chairperson: Hans Vrieling,

Secretary: Paul Höcker, assisted by Margarete Grimus

on December 1st, 2013 in Kuala Lumpur, Malaysia and a few days later in Jakarta, Indonesia. An abstract was made and accepted as oral presentation for the meeting in Seoul, Korea.

2. Membership information

In total, the Working party on Apheresis is having registered 28 members working in the field of apheresis from 14 countries all over the world. Besides the professionals working in the field, the Working Party has also members representing 7 companies working in the field of apheresis.

3. Meetings

The Working Party on Apheresis had in 2013 last year one meeting in at the regional ISBT meeting in Kuala Lumpur (December 2nd).

4. Activities during the period

- Suggestions for the scientific programme for the international meeting in Seoul (2014) and in regional meeting in London (2015) and in Asia (2015) were internally discussed. Together with the Working Party on Granulocyte Immunobiology a programme was suggested and later on organised for the international meeting in Seoul (Monday June 2nd, 2014).
- As reported last year, in co-operation with European and USA professionals (physicians and nurses, from ESFH, WAA) an international course for apheresis nurses was developed in the autumn of 2012. The modular course was further worked out in 2013 and was partly given

Working Party on Blood Supply Management



Loyiso Mpuntsha (left), Chairperson
Gilles Folléa (right), Co-chairperson

1. Chairperson and committee

Chairperson: Loyiso Mpuntsha
 Co-Chairperson: Gilles Folléa

2. Membership information

The Working Party has 26 members from 17 countries.

3. Meetings and Telephone conferences

i) On the 1st of June 2013, at the ISBT Congress in Amsterdam the Working Party held a business meeting attended by 11 delegates representing 9 countries:

- It was agreed that Working Party members who would attend the ISBT meeting in Seoul 2014, would participate in an ISBT academic session;
- The WP agreed to explore the feasibility of organizing a forum in Vox Sanguinis publication platform to share country experiences on how to address each element of the SWOT analysis and related tools for BSM;
- The WP also agreed to compile an Article for the ISBT journal (Transfusion Today) for December 2013.

ii) On the 29th of January 2014 the Working Party held a webex/teleconference:

- Feedback was shared on the Articles published in Transfusion Today (December 2013 issue), it was a good way to present the WP.

- The Forum on BSM for Vox Sang will be followed up by a Task Team.

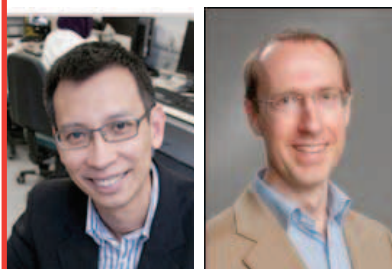
- The Parallel session was confirmed for Seoul (03/06/2014), with the program and speakers as follows:

- a. The Council of Europe and ISBT surveys on BSM - Wim de Kort
 - b. The Australian program to reduce blood component wastage - Neil Beckman (replacing Jacqui Caulfield who will not attend the congress).
 - c. Linking patient blood management and blood supply management: the Pittsburgh experience - Mark Yazer.
 - d. Blood supply management in developing countries: the South African experience - Loyiso Mpuntsha.
- ISBT WP on BSM meeting in Seoul (01/06/2014): confirmed that the Chairperson will update the WP on the agenda and venue.

4. Activities during the period

- i) Blood Supply Management was the theme of 6 articles issued in the section "In Focus" of the ISBT Transfusion Today number 97, publication of December 2013.

Working Party on Cellular Therapies



Mickey Koh (left), Chairperson

Peter Horn (right), Co-Chairperson

1. Chairperson and committee

Chairperson:	Mickey B C Koh
Co-Chairperson:	Peter Horn
Secretary:	Christian Gabriel
Treasurer:	Reinhard Henschler

2. Membership information

Currently has a roster of 44 members across 17 countries.
This membership continues to grow

3. Meetings and Telephone conferences

There were face to face meetings at the ISBT Regional congress in Amsterdam as well as the ISBT Regional congress in Kuala Lumpur
A tele-conference call was made for the office bearers/ committee
A face to face meeting was held 10th March 2013 at the ISBT office in Amsterdam

4. Activities

- Commenced work on a formal set of bye laws which will provide a structure to this WP including election of office bearers and voting.
- Provided support for the 2 ISBT congresses in terms of input into the cell therapy part of the programme.
- Participated in the AABB webinars and took responsibility for one of the webinars broadcast Nov 2013. This was chaired by Mickey Koh and speaker was Thomas Leemhuis from Cincinnati.
- Mickey Koh represents ISBT in the Worldwide Network for Blood and marrow Transplantation (WBMT) which is an NGO with WHO. He chairs the Graft Processing subcommittee.
- Provided advice for ISBT members wanting to set up transplant programmes: received requests from Sri Lanka and Myanmar.
- Continuing work on “Autologous Serum Eyedrops”. This will take the form of a International Forum for Vox Sang. This is currently in progress. Led by Mickey Koh and Joanne Pink.
- Continuing work on “Platelet Lysates”. A consensus document is currently being prepared. Led by Peter Horn and T. Schallmoser.
- Mickey Koh was a guest speaker on behalf of ISBT: Sri Lanka Cell Therapy and Transplantation Symposium in 2013.
- Daphne Thijssen-Timmer represents ISBT on the Cellular Therapy Coding and Labeling Advisory Group (CTCLAG). CTCLAG approved revised ISBT 128 nomenclature of cellular therapy products in July 2013.

Working Party on Clinical Transfusion



Cynthia So-Osman (left), Chairperson
Shubha Allard (right), Co-Chairperson

1. Chairperson and committee

Chairperson: Cynthia So-Osman

Co-Chairperson: Shubha Allard

2. Membership information

We have 31 members representing 18 countries from 6 continents

3. Meetings and Telephone conferences

Business meeting in Amsterdam at the Regional ISBT-congress June 2013

All day interim-meeting on 31st January 2014 in Amsterdam, the Netherlands: 9 members present in person, 5 members by telecom.

Main topics:

1. indication codes for transfusion (subgroup TIC)
2. patient blood management (subgroup PBM)
3. clinical transfusion apps

4. Activities during the period

General activities:

- Paper in Transfusion Today was published about WP activities
- ToR placed on website, including member list
- Pediatric Clinicians were invited to join

Specific activities:

1. Subgroup TIC (lead: Jonathan Wallis)
There was a new proposal for a survey of red cell use in myelodysplasia, with 3 centres per country, with the aim of at least 20 participating countries to include

patients who had received at least 3 RBCs in past 4 months, data collection to include gender, age, weight and MDS category. Time schedule: develop survey within next 2 months, seek relevant ethical approval and aim start survey Sept 2014 with data collection over 3 months.

2. Subgroup PBM (lead Cynthia So-Osman and Shubha Allard)

PBM working Group to develop: 1. website tools for implementation, links to other informative websites, to published papers, to existing e-learning, to audit tools, publish top tips and a forum; 2. benchmark survey on PBM on global level.

Time schedule: Initial introduction with principles of PBM to be drafted for posting on website; agreed subheadings to be allocated between the sub group members for further development and expansion. PBM survey is to be drafted by March/April. Teleconference of PBM sub group: mid April 2014.

3. Apps subgroup (lead: Shubha Allard and Dafydd Thomas)

The WP sent in a funding proposal to the ISBT for a PBM app and we will await the ISBT board's response if they will agree to fund this proposal.

4. Educational subgroup-link w/ Academy (lead: Peter van der Burg)

Peter van der Burg updated on a guidelines inventory which is now complete – accessible to ISBT members. Emphasis on promoting e-learning tools.

Working Party on Donors and Donation



Cheuk-Kwong Lee (left), Chairperson
Peter Van Den Burg (right), Co-Chairperson

1. Chairperson and committee

Chairperson: Cheuk-Kwong Lee
 Co-Chairperson: P.J.M. van den Burg

2. Membership information

We have 17 members from 9 countries (mostly from the Asia Pacific Region) attended the meeting.

3. Meetings and Telephone conferences

The WP donors and donation did not meet during the ISBT Amsterdam. The WP has changed of chair and met on 1 December 2013 at the ISBT Regional Meeting at Kuala Lumpur. During the Kuala Lumpur meeting the members were nearly all for the first time in this WP meeting. A telephone conference with Cheuk-Kwong Lee, Cecilia Tan and Peter van den Burg was made on 5 March 2014 for the discussion of upcoming Seoul Meeting.

4. Activities during the period

The WP activities are with respect to the following areas:

- Previous document of “Guidelines for Donor Acceptance” was reviewed and updated at the meeting.
- Collaboration with other working parties including Donor Haemovigilance; Apheresis and Rare Blood Donors were in progress for the ongoing development of the WP.
- Linking up with the Europeans on the development of a training programme in Donor Health Care (DoHeCa) for those working in other parts of the world.
- Facilitation of networking and benchmarking of practices on donors and donation.

Working Party on Global Blood Safety



Jean-Pierre Allain, Chairperson

1. Chairperson and committee

Chairperson:	Jean-Pierre Allain
Vice Chairperson	Jay Epstein
Secretary:	Marion Vermeulen
Treasurer:	Roger Dodd

Members of the organising committee:

- JC Faber
- P Ganz
- R Reddy
- M Smit

2. Membership information

The working party currently has 53 members

3. Meetings and telephone conferences

During 2013 the working party had 1 meeting which was held at the ISBT Regional congress in Amsterdam and 5 teleconferences

4. Activities during the period

The main activity of the GBS WP in 2013-2014 has been the establishment of a network of blood centres from developing countries intending to collect reliable data from the ground on topics of interest to ISBT but not overlapping with other ISBT WPs.

At present, out of 72 blood centres in 62 countries contacted, 42 responded favourably. The first activity involving this network was a questionnaire addressing number of donation, types of donors, viral screening and confirmation which was sent to these 42 blood centres and 28 from 23 countries responded. The preliminary analysis presented at the annual WP meeting in Amsterdam regional ISBT congress showed a wide range of size of BTC (350-139,000 units collected/y). Five BTC collected

100% volunteer non-remunerated donor blood (VNRD), the others between 97 and 3% with a median at 56%. None identified paid donors. Among VNRDs, the percentage of repeat donors varied greatly, ranging between 88% and 1% (median 34%). Blood testing utilised a wide range of assays: ELISA (60%), Rapid tests (32%), Combos 18%, a mixture of ELISA and RDT 28%. Confirmatory assays were used in 28%, 16% and 12% of centres for anti-HIV, anti-HCV and HBsAg, respectively. 20%, 48% and 68% of centres did not perform any confirmation and discarded donations or donors on the basis of screening test reactivity without further testing. The rest of centres used alternative screening assays for confirmation (52%, 36% and 20%, respectively). The difference in screening assay reactivity between first-time and repeat donations ranged between 3.5 and 4.4 times less for anti-HIV, 1.9 and 6.7 times less for anti-HCV and 2.2 to 28 times less for HBsAg.

An application to a research/education foundation was sent with ISBT executive agreement requesting funding to support the network activities.

Other activities of the WP concerned regulatory convergence, chaired by Dr Jay Epstein and the accreditation of BTC chaired by Karen Lipton-Shoos in collaboration with the African Society of Blood Transfusion. The GBSWP annual meeting on 2nd June 2013 was attended by 45 members and observers from 18 countries. The programme included reports of each of the three subgroups (regulatory convergence, accreditation and blood systems). In addition, there was a presentation on the situation of plasma for fractionation in developing countries. Each section was followed by prolonged and fruitful discussions.

The next WP meeting will take place at the international ISBT congress in Seoul, South Korea.

Working Party on Granulocyte Immunobiology



Lin Fung, Chairperson

1. Chairperson and committee

Chairperson: Lin Fung

Nomenclature Subcommittee:

Chairperson: Brigette Flesch

Members:

- Ulrich Sachs
- Masja DeHaas
- Brian Curtis
- Geoff Lucas

International Granulocyte Immunobiology Workshop

Chairperson: Lin Fung

Members:

- Jurgen Bux
- Geoff Lucas
- Leendert Porcelijn

2. Membership information

ISBT members: 25 (estimate)
 Other interested individuals: 26
 Countries represented: 15

3. Meetings and Activities during the period

(i) Working Party Business Meeting at 23rd Regional Congress of ISBT in Amsterdam, Netherlands

Agenda: Background to the Granulocyte Immunobiology Working Party (GIWP)

Brigette Flesch proposed Chair of the Granulocyte Nomenclature Subcommittee provided a summary of the proposed function of the subcommittee.

Commissioning of the Granulocyte Nomenclature Subcommittee

Discussion of the draft aims and operating principles of GIWP

No of attendees: 24

(ii) First ISBT Asian Pacific Introductory Granulocyte Serology Practicum (29-30 Nov 2013)

Venue: Pusat Darah Negara (National Blood Center), Kuala Lumpur, Malaysia

Sponsored by: ISBT

Hosted by: Dato Yasmin Yakob and Dr Zalina Mahmood of Pusat Darah Negara.

No of Attendees: 30 participants from Australia, China, Germany, Hong Kong, Indonesia, Japan, Malaysia, Singapore and Thailand.

(iii) Working Party Business Meeting at 24th Regional Congress of ISBT in Kuala Lumpur, Malaysia

Agenda: Background to the Granulocyte Immunobiology

Working Party (GIWP)

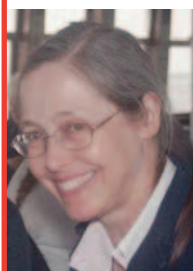
Report on activities of the GIWP

Report on 1st Granulocyte Serology Practicum

Discussion of the draft aims and operating principles of GIWP

No of Attendees: 25

Working Party on Haemovigilance



Johanna (Jo) Wiersum-Osselton, Chairperson

1. Chairperson and committee

Chairperson: Johanna (Jo) Wiersum-Osselton

Committee members:

- Secretary Maria Antonia Escoval,
- Donor vigilance subgroup coordinator Peter Tomasulo
- Member Mickey Koh
- Ex-officio, president of the International Haemovigilance Network Erica Wood

2. Membership information

The working party has 115 members and participants on the mailing list. They represent 40 countries.

3. Meetings and Telephone conferences

The annual working meeting was held during the Amsterdam congress; 34 members attended. Topics covered included definitions (donor complications; TRALI; transfusion-associated circulatory overload; errors and incident definitions), medical device vigilance, blood donor iron status, assessment of transfusion-associated bacterial infections and actions following the WHO-ISBT-IHN-Sharja Blood Center Global Consultation on Blood Safety (Dubai, 2012).

The committee held 3 teleconferences to discuss working party strategy and organisational matters. This included the planning of a session in the Seoul congress.

The membership was consulted by email regarding the donor complication definitions, the definition for (sentinel incident type) distribution of inappropriate/unsafe units; and the definition for transfusion-associated circulatory overload.

4. Activities during the period

Recipient haemovigilance subgroup

- updating of TACO definition: working group convened and held two teleconferences
- examining need for guidance / specifications for haemovigilance in paediatric patients: task adopted by existent Canada – UK – NL collaboration on paediatric haemovigilance; teleconference held
- definition for sentinel event “distribution of inappropriate/unsafe blood component” (working party members)
- participation in follow-on actions following Dubai Global Consultation (2012; participation by ISBT and International Haemovigilance Network IHN). Three working party/committee members, also representing the IHN, participated in a WHO meeting (March 2014) and are contributing on behalf of ISBT and IHN in the preparation of a WHO guidance document on haemovigilance.
- Following on from the Dubai Global Consultation as well as from earlier approaches to WHO concerning the patient safety definitions, two committee members (also representing IHN) participated in a WHO meeting (1-2 April 2014) organised by the patient safety team, examining possibilities for a “Minimum Information Model” harmonising terminology and data collection between different vigilance systems including haemovigilance, radiation safety, medical devices etc.

Donor haemovigilance subgroup

- launching the development of a white paper on donor iron status.
- revision of the donation complication definitions was launched and has led to a mature draft which is currently under review by an expert panel consisting mostly of working party members. The brief of this revision included
 - a) incorporating parameters which are emerging as relevant risk factors for complications
 - b) optimising alignment with definitions in use worldwide, and notably in the USA.

Working Party on Immunoematology



Sandra Nance, Chairperson

1. Chairperson and committee

The ISBT Working Party on Immunoematology was approved as a new Working Party in Amsterdam, June 2013. The interim Chairperson is Sandra Nance, MS, MT(ASCP)SBB. The members of the working party will be determined from the Inaugural Working Party meeting at the ISBT Seoul Congress and from a meeting of 10 very interested participants from Seoul meeting (if funding request is approved by ISBT Board of Directors).

2. Membership information

All Working Party members are required to be ISBT members. As this is the beginning of the Working Party, the members are not yet known and will be selected from interested ISBT members engaged in Immunoematology as their career focus.

3. Meetings and Telephone conferences

Plans are in place for the first half of the Academy Day in Seoul, Korea in 2014 to focus on Immunoematology. The inaugural meeting of the Working Party will be held in the afternoon with a maximum attendee size for the room being 50 attendees.

4. Activities during the period

After the ISBT Board approved the new Working Party, communications were planned based on a meeting with J Chapman and have been carried out on schedule.

- First, the announcement was made at ISAC meeting in Amsterdam about the new Working Party to the other Working Party Chairs
- Second, the announcement was made to the ISBT members through Geoff Daniels' Secretary General's report in Transfusion Today September 2013
- Third, the registration for the ISBT Congress in Seoul has a check off box for interest in the Working Party
- Fourth, a short announcement about the plans for the ISBT Congress in Seoul was published in Transfusion Today in December 2013
- Fifth, a series of articles in the March Transfusion Today will focus on Immunoematology
- Sixth, Academy Day morning was planned and has presentations focused on Immunoematology
- Seventh, the inaugural meeting of the Working Party is planned, with three small group leaders and a full agenda in the afternoon of Academy Day

The plans for the Seoul Congress are to have the first half of Academy Day focused on Immunohematology presentations and the second half of the day is the inaugural Working Party Meeting. The Academy Day presentations focused on Immunohematology are:

- Red Cell Antibody Detection by Serology
- Advances in Automated Systems for Red Cell Testing
- Handling a Transfusion Reaction
- Serological tools for Investigation Immunohaematologic Problems
- Molecular Tools of Investigating Immunohaematologic Problems
- Determining the Clinical Significance of Antibodies.

The Working Party meeting will review the results of an international survey on methods for immunohematology, and will have small workgroups to solicit and collect suggestions for Terms of Reference for the Working Party and plan activities for the London ISBT Congress to focus on Academy Day Program, Working Party Program and Working Party meeting.

A request for funding has been submitted to the ISBT Board to fund a small meeting of 10 individuals that would focus on the new Working Party and would establish the Working Party Members, Terms of Reference and the programming for London Regional ISBT Congress.

Working Party on Information Technology



Ralf Knels, Chairperson

1. Chairperson and committee (TF = Task Force)

Chairperson: Ralf Knels (Chairperson RFID TF)

Executive Committee:

Treasurer	Paul Ashford
Vacant Chairperson Traceability TF	
Secretary and Vice chairperson RFID TF	Lynne Briggs
Past Chairperson	Pia Bruce
Representative ISBT-Board	Judith Chapman
Vice Chairperson Standard Interface TF	Shankar Goudar
Vice Chairperson Standard Interface TF	Teresa Knutsen
Chairperson Standard Interface TF	Linda Lodge
	Mario Muon

2. Membership information

92 members from 18 countries

3. Meetings and Telephone conferences

Assembly meeting at ISBT Amsterdam on June 2, 2013. 13 attendees; report from EC and TF's, discussion about future strategy

2 telephone conferences of EC

4. Activities during the period

As a result of finalizing guidelines by the Validation and RFID TFs in 2010 activities in both TFs are pending till new aspects require action.

The Interface TF work was intensified (report see below). A proposal for the ISBT Board to join HL7 was submitted.

Interface TF

The Interface Task force objective of defining standard interfaces for all instrument and system groups involved in Blood and potentially Tissue Transfusion is a task of enormous proportion involving a significant amount of both transfusion and vendor organisations.

The Interface Taskforce had a number of challenges to overcome in order to move forward with definition of the standard interface including:

- Number of active and non-active members
- Engagement of members
- Specific interest of members e.g. some only instruments or a specific instrument, some only systems or a specific system
- Selection and priority of activities
- Organisation and management of activities

2013 has focused on analysing and addressing the challenges noted above and preparing to move forward in defining the first group of standard interfaces.

Organisation of the Interface Taskforce management and the approach to the task was the first activity to be addressed. An Interface Taskforce Steering Group (ITSG) has been created with 9 ISBT members representing Transfusion, Vendor and Standards expertise. The ITSG directs and oversees the activities of further sub-working groups who will be engaged in the detailed definition of interfaces for both instruments and systems. The membership of these working groups will vary according to the expertise and experience required to defined specific interfaces. Recommendations from these working groups will be reviewed by the ITSG before being presented to

the full Interface Taskforce membership and the WPIT Executive for approval.

The ITSG have an agreed standard framework and work plan for the working group activities and a method of prioritising the interface developments has been developed. A review of work previously carried out by the Interface Taskforce was conducted and alternative approaches considered. The review concluded that the white paper proposals detailed in “ISBT Working Party on Information Technology – Interfaces Task Force Developing an ISBT Instrument/System Interface Standard White Paper (6 August 2010)” are still valid and should therefore be the focus of further development. In short, according to the white paper the aim is to develop transfusion specific coding tables that can be used within existing standards (HL7 and LIS2-A2). This will involve the creation of a standardised vocabulary which will allow data transmission in a pre-defined format allowing a generic interface to receive and interpret the information.

Up front consideration has also been given to the adoption of any new evolving interface. The experience of other standard bodies and field experts was sought and their advice has been used by the Interface Taskforce Groups.

A number of presentations have been made to various interested groups to heighten awareness and gather support for the development, resulting in new membership and encouraging feedback. A form of wording has been proposed for use by establishments who are entering a procurement exercise for instruments or systems (web reference to be entered) and has already been adopted as standard by some Transfusion Services. An Executive Summary setting out the objective and approach has been created to inform Transfusion and Vendor members of our intent (web reference to be entered).

At the time of writing working groups are now active for two instrument groups and beginning to define the standard

interface for Blood Collection Mixer/Shakers and Viral Testing Analysers. A call to members interested in these areas has been issued asking for relevant information and encouraging participation in the development (web and publication references to be entered). The target is to have initial publication of these new Standard Interfaces in 2014.

Traceability TF

Michael Breard stepped down as TF chairperson. No successor was found till now to reactivate the work of this important TF.

Working Party on Platelet Immunobiology



Sentot Santoso (left), Chairperson

Nelson H. Tsuno (right), Co-Chairperson

1. Chairperson and committee

Chairperson: Sentot Santoso
Co-Chairperson: Nelson H. Tsuno

2. Membership information

International Working Party: 36 members, 21 Countries
Asia Regional: 19 members, 10 Countries

3. Meetings and Telephone conferences

None

4. Activities during the period

In an attempt to improve platelet immunological methods for the reliable diagnosis of immune mediated thrombocytopenia as well as to develop a research network between Asian and other interested countries, the Platelet Immunology Working Party, Asia Regional (PIWP-AR) was established by the ISBT in 2010.

Since July 2012, we have been working on the organisation of a training course of platelet immunology methodologies for the Asian and other interested labs, that would like to start or improve their skills in these methodologies. Following the first training course organised in Tokyo, the second training course was organised in Guangzhou by the members of Guangzhou Blood Centre in collaboration with Nanning Blood Centre, in the period May 7-9, 2013. In the training course, consisting of platelet immunology serology methods (MAIPA, MPHA, and PIFT) and genotyping, 17 people from 8 countries participated, and learned these technologies.

Following the 1st workshop of the Platelet Immunology Working Party, Asia Regional (PIWP-AR), successfully held in Taipei (November 2010), during the 22nd Regional Congress of the ISBT, the second PIWP-AR workshop was organised in Kuala Lumpur, in December, 2013, during the 23rd Regional congress of the ISBT. Nineteen labs from 10 countries participated in this workshop, which consisted of 3 exercises, as follows:

- 1) serological detection of anti-platelet antibodies,
- 2) genotyping of human platelet antigens (HPA), and
- 3) detection of CD36-negative frequency in Asia population by investigating 200 individuals. The results were discussed in Kuala Lumpur, and a significant improvement was observed in most labs. After the workshop, exercise 3) the detection of CD36-negative individuals in Asia was further developed, and labs were requested to increase the number of individuals investigated, and in addition to the analysis of CD36 expression on platelets, they were requested to investigate the expression on monocytes. Also, the DNA samples of CD36-negative individuals were collected, and DNA sequencing is now being performed to determine the DNA mutations responsible for CD36-deficient predominant in Asia. These results will be presented in the workshop meeting to take place during the 33rd International Meeting of the ISBT to be held in Seoul, where the members of the international working party as well as of the Asia regional working party will be present.

On June 2nd, 2013, during the 23rd ISBT Regional Congress in Amsterdam, the meeting of the International Platelet Immunobiology Working Party (IPIWP) was organised, where our activities in the forthcoming years, including:

- 1) Nomenclature of HPAs,
- 2) Topics for the International Workshop 2013,

- 3) Topics for Scientific Collaborations within the Working Party Members,
- 4) Topics for Standardization (Antigens and Antibodies), and
- 5) Others, were discussed. During this meeting, it was decided that the lab from the University of Tokyo (Japan) would organize the

A training course on platelet immunology methods was organised in Guangzhou Blood Centre December 9 - 11, 2013. Twelve people from ten labs in China participated. In December 9-11, 2013, a training course on platelet immunology methods was organised in Guangzhou Blood Center, in which 12 people from 10 Chinese labs participated. Techniques of sequence based typing, PIFT, and MAIPA were provided.

The organisation of the 17th Workshop of the IPIWP was started in November 2013, by sending a questionnaire to the participants on their interest to join the workshop, and requesting suggestions for the exercises. In this workshop, 5 exercises, namely

- 1) serological detection of anti-platelet antibodies,
- 2) detection of HPA-15 antibodies using HPA-15 transfectant cells, lyophilized platelets, and fresh platelets,
- 3) confirmation of NAIT caused by HLA antibodies,
- 4) evaluation of conformational-dependent anti-HPA-1 and anti-HPA-3 antibodies, and
- 5) genotyping of HPA, are being conducted by 33 labs from 20 countries. The results of the workshop will be discussed in Seoul (June 2014), and in Bad Homburg, during the XIIIth European Symposium on Platelet and Granulocyte Immunobiology (July 2014). At the same time, a survey on the clinical significance of HPA-15 antibodies is being conducted, including the 33 labs, and the results will be compiled and discussed during these meetings.

Working Party on Quality Management



Paul Strengers, Chairperson

1. Chairperson and committee

Chairperson: Paul Strengers

Board members:

- Christian Seidl
- Tomislav Vuk
- Lesley Bust

2. Membership information

39 members from 27 countries: Belgium (1), China (1), Croatia (2), Egypt (1), France (1), Germany (3), Gibraltar (1), Greece (2), Indonesia (1), Kuwait (1), Libya (1), Mexico (1), Netherlands (3), Nigeria (1), Pakistan (1), Qatar (1), Romania (2), Saudi Arabia (1), Sweden (1), South Africa (1), Tunisia (1), UAE (1), UK (1), Ukraine (2), USA (5), Yemen (1), WHO (1).

3. Meetings and telephone conferences

June 3, 2013: WP-Quality Management meeting at ISBT Regional Congress in Amsterdam, The Netherlands (17 members present) Topics: Report of the third meeting of the WP in Cancun 2012; Academy Session on Quality; Quality Indicators Project; Quality Management Survey; Error Management; Transfusion Today; Governance; and Collaboration with other Working Parties.

4. Activities during the period

The Academy Day on June 2nd 2013 at the 23rd Regional Congress of the ISBT in Amsterdam was very successful for our WP because the “Quality management” section on the Academy Day was very well attended. Focus was laid on GMP for Blood Establishments. Presentations were

given on GMP in blood establishments and hospital blood banks (Paul Strengers, the Netherlands), Blood component preparation and quality control (Christian Seidl, Germany), Importance of documentation in GMP (Lesley Bust, South Africa), self inspection of blood establishments (Jan Ceulemans, Belgium), GMP requirements for premises and equipment in blood establishments (Christian Schärer, Switzerland), and Management of complaints and product recall (Tomislav Vuk, Croatia). The inclusion of these presentations in the ISBT Academy webcast system which allowed ISBT members to view all presentations is very much appreciated.

The Quality Indicators Project on the definition and selection of 32 possible Quality Indicators (QI) stays an important topic aimed at comparing indicators in different blood establishments. In October 2012 a revised list of QIs was distributed and members of the WP on Quality Management and of the WP on Haemovigilance were requested once more to select 10 indicators. A total of 18 responses were received and a final list of indicators was created. It was decided to test the questionnaire before distributing it at an international level, the aim being to detect any problems, shortcomings or ambiguities.

The Quality Management Survey was conducted to determine the type and status of quality management systems (QMS) in use in various countries. The aim is to define those areas/activities in blood establishments (BEs) that need improvement so that training and education can be focused there. Questions in the survey covered the various activities performed by BEs, the quality systems in place and whether a regulatory inspection is being performed or not. The membership of the WP on Quality Management suggested adding questions about

what standards are used for regulatory inspections. A total of 26 responses were received from BEs, worldwide. A total of 88 % of respondents indicated that their QMS will need to be changed or improved in future. Of these, 76 % indicated that improvements are needed to comply with current national requirements. The amount of change required was graded across various QMS parameters and results were presented. The next steps for the project are:

1. Publication of summary of survey in *Transfusion Today*;
2. Submission of publication / letter to peer-review journal ;
3. Continuation with survey platform to allow for further collection of data ;
4. Completion of survey and distribution of results to ISBT members.

Error Management. An update was made on the proposed classification of errors that was sent to WP on Quality Management and WP on Haemovigilance members. Transfusion medicine requires its own method of classification as other systems have limitations resulting in too many errors/events being classified as 'miscellaneous'. This method of classification should cover blood establishments, hospital blood banks and clinical wards and the following categories were suggested for each of these. Laboratories are to be included. Sub-categories are being defined for each of the above with limiting the number of choices. The aim is to have a classification that can be used by all, should they choose to do so. Developing an electronic system of classification would be beneficial in the future.

In *Transfusion Today* in September 2013 a focus issue on Quality Management in Transfusion Medicine appeared. The following articles were published: ISBT Working Party on Quality Management (Paul Strengers), Quality Indicators in blood establishments:

ISBT Working Party on quality management project (Tom Vuk), Standards, criteria and training requirements for improving quality management: The International Survey performed by the Working Party (Christian Seidl), Building

Blocks of Quality Management System (Lesley Bust), Quality status of blood services in Eastern Mediterranean Region (EMR) (Faten Mofita). Great support was received from the ISBT Central Office.

Collaboration with other ISBT Working Parties. The WP-Quality Management is already collaborating with the Haemovigilance WP. The WP will also draw up a memorandum of understanding with EUBIS.

Working Party on Rare Donors



Sandra Nance, Chairperson

1. Chairperson and committee

Chairperson: Sandra Nance

Members of the Executive Committee

- Vice-Chair: Christine Lomas-Francis
- Secretary: Erwin A. Scharberg
- Treasurer: Vered Yahalom

The idea for the ISBT Working Party on Rare Donors started in 1984, with the Working Party starting officially in 1985. The first Chairperson was Delores Mallory, MT(ASCP)SBB (1985 to 1994) followed by Graeme Woodfield, MD (1994 to 2004) with the current Chair as Sandra Nance, MS, MT(ASCP)SBB since 2004. The other four members of the Executive Committee are Vice-Chair, Christine Lomas-Francis, MSc, FIBMS, Secretary Erwin A. Scharberg, MD, and Treasurer Vered Yahalom, MD.

2. Membership information

The Working Party has 26 members representing 21 countries. There were four new Working Party members in 2013, three replacing retiring members and one representing a new joining country (Sweden).

All Working Party members are required to be ISBT members and to share their country's rare donor list (by phenotype) with the International Blood Group Reference Laboratory (IBGRL) who manages the WHO International Rare Donor Panel (IRDP).

3. Meetings and Telephone conferences

An informal meeting for the Working Party on Rare Donors was held at the ISBT Regional Congress in Amsterdam in 2013. Eighteen members (or their delegates) and six invited guests attended. The topics included new items on the Working Party webpage, rare donor recruitment leaflet,

a report by the IBGRL on the WHO IRDP, discussions with the Welcome Trust, creating a template for international reporting of outcomes in patients receiving incompatible transfusions, creating an international rare donor card, enlarging the International Rare Donor Panel database by adding new countries to the Working Party, and updating the list by current members. Working Party members reported on their country's Rhnull donors, the type reported by the most countries as difficult to supply in the 2012 Working Party meeting.



4. Activities during the period

Working Party members investigated and reported on the situation in their country regarding Rhnull donors. Rhnull donors are in high demand (as are other null phenotypes) because of their compatibility with antibodies to antigens of high prevalence, in the RH system with antibodies made by patients with variant RHCE and RHD genes that encode partial antigens. All countries prepared reports and there are only 20 known Rhnull donors! China has the most, with 5 known donors followed by Brazil with four, Germany, South Africa and the USA have two each, and Finland, France, Spain, Switzerland, and the

United Kingdom have one each. As this is a critical donor phenotype, a funding request for recruitment of these and other internationally rare donors was recommended and submitted for ISBT funding. It was further recommended to perform absorption/elution and molecular testing on the known Rhnull donors to determine the genetic background and to ensure that they are not Rhmod.

Other activities discussed and actions recommended by the Working Party were addition of a description of the Working Party to the webpage, recommendation that it be required to treat rare blood shipments like organ shipments so there are no product-threatening delays, educational program sponsored by the Working Party, development of a reporting template and webpage on outcomes to incompatible transfusion. The last topic's concept is a way to record transfusion outcomes when incompatible red cells are transfused to assemble anecdotal experiences into a collection. Each Working Party member will make the reporting template known (and it will be posted on webpage), will receive the report, translate, anonymize it, send to the Chair for review and the Chair will arrange posting to the web page.

Working Party on Red Cell Immunogenetics and Terminology



JR Storry, Chairperson

1. Chairperson and committee

Chairperson: JR Storry

Committee

- L Castilho
- GL Daniels
- G Denomme
- WA Flegel
- C Gassner
- M de Haas
- C Hyland
- C Lomas-Francis
- JM Moulds
- N Nogues
- ML Olsson
- T Peyrard
- CE van der Schoot
- Y Tani
- LC Yu
- F Wagner
- S Wendel
- CM Westhoff
- V Yahalom.

2. Membership information

Twenty-two members, thirteen countries represented. Dr. George Garratty, Dr. Marion Scott and Dr Philippe Rouger resigned from the Working Party.

3. Meetings and Telephone conferences

Working Party business has largely been conducted via e-mail in the intervening year between International meetings. No face-to-face meeting was held at either of the regional meetings in 2013.

4. Activities during the period

A one-day meeting was held at the ISBT office in Amsterdam in October 2013 to discuss collaboration of the Working Party with the Locus Reference Genomic (LRG) project, a part of the European Bioinformatics Institute. Geoff Daniels and Jill Storry represented the Working Party, John Ord represented the LRG project and Wolfgang Helmberg represented the dbRBC database organized under the auspices of the National Center for Biotechnology Information (NCBI). The outcome of the meeting was positive and potential avenues of collaboration will be discussed at the upcoming meeting of the Working Party in Seoul.

The report from the Cancun report was published finally, after the publishers lost the manuscript in production [1]. Members have continued to collect information on new blood group alleles, antigens and systems and have been active at various conferences.

1. Storry JR, Castilho L, Daniels G, Flegel WA, Garratty G, de Haas M, Hyland C, Lomas-Francis C, Moulds JM, Nogues N, Olsson ML, Poole J, Reid ME, Rouger P, van der Schoot E, Scott M, Tani Y, Yu LC, Wendel S, Westhoff C, Yahalom V, Zelinski T. International Society of Blood Transfusion Working Party on red cell immunogenetics and blood group terminology: Cancun report (2012). *Vox Sang.* 2013. doi: 10.1111/vox.12127. [Epub ahead of print]

Working Party on Transfusion Transmitted Diseases



Michael P. Busch, Chairperson

1. Chairperson and committee

Chairperson: Michael P. Busch
 Secretary: Emma Castro
 Treasurer: Ravi Reddy

Corporate Members Representative
 Anthony Hardiman

Individual Members Representative
 Richard J. Benjamin
 Past Chair / Advisory Member:
 Silvano Wendel

2. Membership information

Our membership brings together scientific experts, company representatives and members from leading institutions in the fields of blood safety and infectious diseases. The WP-TTID has 98 members from 30 countries.

3. Meetings and Telephone conferences

The Annual Meeting was held in Amsterdam, June 2013 with a total of 64 participants. A new meeting structure was introduced with the Subgroup Sessions integrated into the General Assembly. Topics included Secretary and Financial Reports and, WP-TTID Subgroups updates: 1) Bacteria; 2) Parasites, 3) Surveillance, Risk Assessment +Policy (SRAP); 4) TSE and 5) Virology. The assembly ended with a general discussion session, including Corporate Members' feedback. Another WP-TTID Meeting was held in Kuala Lumpur, December 2013 with 43 attendees. The agenda focused on infections and key issues in the Asia-Pacific region, the Middle East and Australia. Ongoing and new WP-TTID initiatives were also discussed. Meeting agendas and presentations can



be viewed online at: <http://www.isbtweb.org/nc/working-parties/transfusion-transmitted-infectious-disease/>.

The Organizing Committee convened 5 teleconferences, partly with the Subgroup Coordinators. Main topics discussed were: meeting planning, member recruitment, funding procedures, projects and elaboration of WP-TTID Travel Awards. The Corporate Members held 2 conference calls discussing: new observer status for companies, optimization of subgroups' structure, general WP-TTID output and increasing meeting frequency. Each subgroup also organized individual conference calls to discuss ongoing projects and future initiatives.

4. Activities during the period

The WP-TTID Travel Awards procedure was finalized and the first 3 awards were granted for the Kuala Lumpur meeting to Helen Faddy, Rajesh Sonani and Peibin Zeng. Oversight Committee was formed to evaluate projects for funding. A major project to be funded in 2014 is the CUA webtool and its maintenance.

Each Subgroup met regularly by teleconference and reported the following activities:

Subgroup on Bacteria - Coordinators: Carl McDonald, Richard Benjamin

Drs. McDonald and Benjamin have co-authored a review of the international experience with BacT/ALERT testing.

International survey on definitions and practices in prevention and management of transfusion-transmitted bacterial infections: Erica Wood. A manuscript is in preparation

WHO-ISBT WP-TTID International Validation Study, Phase 2: Eva Spindler-Raffel (PEI).

This study will characterize 11 candidate strains to enlarge the 1st WHO International Reference Repository for Platelet Transfusion-relevant Bacterial Strains. Results will be presented at TTID ISBT Seoul.

Survey of bacterial culture practices in developing countries: Sandra Ramirez-Arcos. A Survey was submitted using Survey Monkey to representatives of blood banks in Latin America regarding strategies used for bacterial testing. The goal is to subsequently survey other developing countries.

Subgroup on Parasites - Coordinators: David Leiby, Hira Nakhasi

During the past year, the Subgroup analyzed data from a survey designed to determine the impact of parasitic agents on transfusion practices in ISBT member countries. As a result, the Subgroup submitted an abstract for the Seoul Congress and a manuscript is in preparation for submission to Vox. The Subgroup also collaborated with the SRAP Subgroup on an assessment of malaria risk in

five non-endemic countries.

Subgroup on Surveillance, Risk Assessment and Policy - Coordinators: Sheila O'Brien, Brian Custer, Clive Seed

In 2013, SRAP combined the scope and activities of the Epidemiology, and Risk Assessment and Cost Utility Analysis Sub-groups into a single working group. The group has expanded membership with 16 members of the WP TTID identifying SRAP as their primary sub-group.

Current Projects include: 1) Comparison of Epidemiologic Data and Policy to Address Imported Malaria Risk. This joint project with the Parasitology sub-group, compiled, compared and analyzed data on travel patterns and imported malaria with a focus on deferral versus selective testing policies. An abstract has been submitted to the Seoul ISBT and a manuscript is in preparation. 2) Cost-Utility of Blood Safety Screening. The cost-utility analysis webtool is being used on two multinational projects which will evolve into manuscripts. In addition, the methodology for calculating cost-utility has been changed from disability adjusted life years (DALYs) to quality adjusted life years (QALYs). A methodological manuscript describing the tool is in preparation.

Subgroup on TSE - Coordinators: Joliette Coste, Luisa Gregori

The TSE subgroup discussed the need to review and summarize the literature on experimental and epidemiological data on transmissibility of Alzheimer's disease and sporadic CJD (sCJD) by blood transfusion. In a recent conference call, it was decided to first address the issue of infectivity in sCJD blood. This decision was based, in part, on a recent publication showing evidence of infectivity transmission from plasma of sCJD-infected patients to transgenic mice. The subgroup is currently

reviewing epidemiological and experimental published data on the topic and will report the results including a critical evaluation of the data at the next meeting, with a planned manuscript.

Subgroup on Virology - Coordinators: Syria Laperche, Susan Stramer, Jean-Pierre Allain

In 2013, the HBV safety collaborative group received and characterized samples from Burkina Faso (40), Slovenia (7), Croatia (10), Spain (2), Poland (40). Three difficult cases of OBI transmission by transfusion were resolved. In total, 9 people were trained on HBV molecular biology techniques in the Cambridge lab for periods ranging from a week to a year: 6 from China, 1 from Italy, 1 from Poland, 1 from Switzerland.

Two external quality assessment surveys (EQAS) in transfusion centres of sub-Saharan Africa were completed in Francophone (17 countries) and Anglophone (12 countries) Africa and plans for additional EQA operations including a larger number of African countries are ongoing. A large sample repository from 6 Francophone African countries is also being developed.

For a list of publications from the Working Party please check the website.

Reports from ISBT Standing Committees

- ISBT Standing Committee of the ISBT Academy
- ISBT Standing Committee on Ethics
- ISBT Standing Committee Jean Julliard Prize
- ISBT Standing Committee of Vox Sanguinis

Standing Committee of the ISBT Academy



Roger Dodd (left), Chairperson

Diana Teo (right), Vice Chairperson

1. Chairperson and committee

Chairperson: Roger Dodd

Vice Chairperson: Diana Teo

Committee

- Beryl Armstrong
- Peter van den Burg
- Judith Chapman
- Ahmad Gharehbaghian
- Mindy Goldman
- Graciela León
- Neelam Marwaha
- Martin Olsson
- Kenji Tadokoro
- Eugene Zhiburt

2. Meetings and Telephone conferences

The Standing Committee met at the 23rd Regional congress of the ISBT Amsterdam. The meeting was chaired by Roger Dodd, with ten members of the Standing Committee attending and Geoff Daniels, representing the ISBT Foundation attending as a guest. The following topics were discussed:

- Activities during the prior year
- Revised Terms of Reference
- Revision of and improvements to the application and review processes for Academy events
- Update on progress with the e-learning platform
- Revised structure and function of the Foundation
- Planning for Academy events in Seoul in 2024

The role of the Foundation is integral to the activities of the Academy, as it has been determined that the Foundation will be the main source of funding for Academy programmes. In this context, the Standing Committee of

the Academy has also been constituted as the Advisory Committee to the Foundation. In practice, this means that that programmes and proposals are reviewed by the Standing Committee and a favourable review will serve as a recommendation to the Foundation for funding.

The Standing Committee has been active throughout the year, but has been able to conduct its ongoing business by e-mail. Over the course of the year, Standing Committee members evaluated and made recommendations on 17 proposals for Academy support of educational events.

3. Activities during the period

The development of the ISBT Academy e-Portal continued to progress. The e-Portal is aimed at providing web-based access to all of the Society's learning materials, including access to key presentations from ISBT Congresses. For the first time, live streaming video was broadcast from the Kuala Lumpur meeting as a pilot initiative to explore the feasibility of real-time participation via internet. The new Guidelines Library, which was formally introduced at the same meeting, is an organised repository of links to transfusion medicine related guidelines and standards documents from a good spread of organisations around the world.

During the reporting year, the Academy also designed and supported two highly successful Academy Days (at the Amsterdam and Kuala Lumpur Congresses) and has supported an additional 16 educational or training events in twelve different countries (see listing).

ISBT Standing Committee Jean Julliard Prize



Silvano Wendel, Chairperson

1. Chairperson and Committee

Chairperson: Silvano Wendel

Committee

- Jo Ann Moulds
- Jean Pierre Allain
- Yong Ming Zhu
- Kenki Tadokoru
- Richard Benjamin
- Neelam Marhawa

The award ceremony will take place during the opening session of the Seoul Congress.

2. Meetings and Telephone conferences

All activities were performed using electronic communication (emails)

3. Activities during the period

Jean Julliard Prize – There were 3 candidates for the Prize: Gerald Bertrand (France); Eldad Hod (USA) and Mark Yazer (USA). The Jean Julliard Prize was awarded to Eldad Hod whose main line of research is “Red blood cell transfusion-induced inflammation: myth or reality”. The prize ceremony will take place in Seoul, with a lecture given by Dr. Hod.

Vox Sanguinis best paper 2013 – There were eight (8) papers selected by the editorial board sent for evaluation by the Jean Julliard committee. There were 3 papers with very close scores, however the best paper chosen by the committee for the 2013 award was entitled “Bacterial growth in red blood cell units exposed to uncontrolled temperatures: challenging the 30-minute rule” authored by S. Ramirez-Arcos, H. Perkins, Y. Kou, C. Mastronardi, D. Kumaran, M. Taha, Q.-L. Yi, N. McLaughlin, E. Kahwash, Y. Lin & J. Acker, from Canada.

Standing Committee on Ethics



Smaranda Ghibu, Chairperson

1. Chairperson and committee

The Committee was re-established this year. The following members have been nominated by the Executive Committee of the Board of Directors in March 2014. Smaranda Ghibu is the Chairperson and there is one member, Peter Flanagan. Currently new members are being sought.

2. Meetings and Telephone conferences

No formal meetings were held during the year.

3. Activities during the period

Mrs Ghibu drafted new terms of reference which were adopted by the Board of Directors at their meeting in December.

Dr Flanagan and Mrs Ghibu are currently establishing a new committee following recommendations from the ISBT Board of Directors.

The Board of Directors requested that the Committee proceed to the revision of the Code of Ethics. This review is set to begin in 2014.

Standing Committee of Vox Sanguinis



Geoff Daniels, Chairperson

Vox Sanguinis is the primary scientific journal of the ISBT. The Editorial Board of Vox Sanguinis is responsible for editorial policy, whereas the Standing Committee is responsible for governance of the journal and functions as an interface between the Editorial Board and the Society.

1. Chairperson and committee

Chairperson: Geoff Daniels

Committee:

- Steve Morgan
- Roger Dodd
- Diana Teo
- Wolfgang Mayr
- Dana Devine

2. Meetings and Telephone conferences

The Committee meets at least once per year by telephone conference. Representatives from Wiley-Blackwell (the publishers), and the ISBT President are invited to participate in Standing Committee meetings.

An annual prize is awarded to the best paper published in Vox Sanguinis. Papers are nominated by the editors and the winner is selected by the Jean Julliard Committee. In 2013, the prize was awarded in Amsterdam for the following paper: A Yver, M-C Homery, E Fuseau, E Guemas, F Dhainaut, D Quagliaroli, R Beliard, G-F Prost. Pharmacokinetics and safety of roledumab, a novel human recombinant monoclonal anti-RhD antibody with an optimized Fc for improved engagement of FC RIII, in healthy volunteers. Vox Sang 2012;103:213 - 222.

Despite the financial climate and the trend away from printed copies of journals, Vox Sanguinis remains financially sound. The royalties coming to the ISBT from Vox Sanguinis in 2013 were significantly higher than in previous years.

The number of articles published in Vox Sanguinis in

2013 was 89, roughly the same as that for each of the last eight years. Approximately 40% of submitted articles were accepted for publication. The rejection rate of 60% was lower than that for the previous year. The impact factor in 2012, the most recent year to be published, was almost identical to that for 2011. Following a request from the Editor-in-Chief, the Standing Committee agreed to an additional 6 pages per issue of Vox Sanguinis in order to reduce the backlog of papers waiting to be published.

In 2013, with the support of the ISBT Board, the Standing Committee together with the Vox Sanguinis Editor-in-Chief took the decision that articles submitted to the ISBT Science Series by invited speakers to ISBT Congresses, would be sent out for peer-review. This new procedure has been applied for the 2013 Kuala Lumpur Congress and the issue of the Science Series will be published in 2014. In addition, one or two additional issues containing papers that are scientifically sound, but not necessarily of broad enough interest to be published in Vox Sanguinis, will be published following peer-review. We hope that these changes will provide a better journal for ISBT members and lead to acceptance by Medline and, consequently, listing on PubMed.

ISBT Foundation



Geoff Daniels,
Chairperson



Roger Dodd,
Secretary



Steve Morgan,
Treasurer



Ravi Reddy



Martin Gorham

Following confirmation from the Dutch tax authorities of the financial benefits to the Society of supporting a Foundation and verification that the ISBT Board would be permitted to have a majority membership on the Foundation Board, the ISBT Board decided it was necessary to re-establish the ISBT Foundation. A new Foundation Board consisting of Geoff Daniels (ISBT Secretary General), Steve Morgan (ISBT Treasurer), Roger Dodd (ISBT Vice-President), and Ravi Reddy and Martin Gorham (ISBT members) met for the first time during the Amsterdam Congress in 2013. The focus of the new Foundation is to provide funding for education in transfusion-related fields, especially in the developing world. Together with the Amsterdam Notary, the Foundation Board has rewritten the statutes and rules of the Foundation. The Advisory Committee to the Foundation is the Standing Committee of the ISBT Academy, which is responsible for governing the activities of the Academy and, therefore, all of the educational activities of the ISBT.

The ISBT Foundation has provided funding for Academy events in a variety of countries, including Argentina, Brazil, China, India, Pakistan and Russia. Funding has also been provided for the new on-line portal on the ISBT web site (www.isbtweb.org).

ISBT Award and Prizes

- ISBT Award
- Vox Sanguinis Best Paper Prize

ISBT Award



Cees van der Poel

Cited for being a tireless advocate of voluntary non-remunerated blood donation and for the development of the Council of Europe Guide for the preparation, use and quality assurance of blood components.



Henk Reesink

Cited for his educational contributions to transfusion medicine and his long-term and productive association with ISBT, with particular reference to his management of the International Forum in Vox Sanguinis.



Cecilia Tan

Cited for her efforts in support of VNRBD in the Asia-Pacific region and the considerable leadership she has demonstrated in her activities with the WHO and IFRC in the field.



Che Kit Lin

Cited for his extensive contribution to the development and promotion of transfusion medicine in the region and as a dedicated advocate of voluntary non-remunerated blood donation

Vox Sanguinis Best Paper Prize



Vox Sanguinis has granted a scientific award, the Vox Sanguinis Best Paper Prize, for the best original article published per calendar year in Vox Sanguinis.

The 2013 prize was awarded to A Yver for the Paper: “ Pharmacokinetics and safety of roledumab, a novel human recombinant monoclonal anti-RhD antibody with an optimized Fc for improved engagement of FC RIII, in healthy volunteers”.

A Yver, M-C Homery, E Fuseau, E Guemas, F Dhainaut, D Quagliaroli, R Beliard, G-F Prost. *Vox Sang* 2012;103:213 – 222

In Memoriam

- Dr Gordon Archer
- Prof George Garratty

In Memoriam

By: Anne Fletcher, Gordon Whyte, Brenton Wylie



Dr Gordon Archer

Dr Gordon Archer, a past President of the International Society of Blood Transfusion (1988-1990) passed away in Sydney on September 6, 2013. Dr Archer held the position of Director of the NSW Red Cross Blood Transfusion Service, NSW, Australia from 1967 to 1991. He was a widely respected and admired figure in Transfusion Medicine.

Gordon Archer and his twin brother, Harold were born in Melbourne on 18 March 1926. He was educated in Canberra and Melbourne and attended the Royal Melbourne Institute of Technology (RMIT) where he studied metallurgical engineering. On graduating in 1944 Gordon Archer and Harold (also an engineer) enlisted in the Royal Australian Army Engineers, became officers and were sent to join the Australian forces in Rabaul, New Guinea. After World War II Gordon Archer enrolled to study Medicine at the University of Sydney. After graduating in 1953 he trained in Pathology at Royal Prince Alfred Hospital gaining the Diploma of Clinical Pathology and was admitted as a member of the Royal College of Pathologists of Australia in 1960.

Dr Archer joined the NSW Red Cross Blood Transfusion Service as Assistant Director in 1957. He pursued a lifelong interest in research with a special interest in the role of eosinophils and mast cells in allergy. Early in his career he undertook research studies funded by the National Institutes of Health at the Rockefeller Institute in New York. Later he took a sabbatical at the Centre National de Transfusion Sanguine in Paris in 1970. Dr Archer was a founding member of the Australian Society of Medical Research in 1961 and served as its President from November 1964. In 1967 Dr Archer assumed the role of Director of NSW Red Cross Blood Transfusion Service. During the next few decades he championed the collection of blood into plastic packs, the greater use of blood components, the improvement of storage media to improve quality of red cells and platelets; he was the initiator of the anti-D procurement program known as the Rh Project, a very successful program in Australia. He also decided to introduce histocompatibility testing (for HLA typing and support of kidney transplants). Dr Archer supported research into the development of hepatitis B virus testing, resulting in very early universal donor testing, the heat treatment of plasma and cryoprecipitate (containing Factor VIII) to eliminate viruses, and importantly the introduction of HIV testing in May 1985 as one of the first testing sites in the world. Dr Archer also supported the change to monoclonal antibody-based blood grouping and was very supportive of research to develop a monoclonal antibody-based alternative to plasma-derived anti-D. He participated in the development of a quality based framework and code of practice for blood banks in the early 1990s. He assisted in developing many transfusion services throughout Asia and the Pacific with training positions in Sydney and development courses.

In 1964 Gordon Archer was amongst the small number of founding members of the fledgling Australian Society of Blood Transfusion (which later became the Australian and New Zealand Society of Blood Transfusion). He was inaugural Secretary/Treasurer of the Society and became President in 1972. He was later honoured as the Ruth Sanger orator in 1999 and made a life member. Dr Archer was instrumental in the planning and success of the two Congresses of the International Society of Blood Transfusion held in Sydney - the XI Congress in 1966 and the XIX Congress held in 1986 of which he was President. He was elected President of the International Society of Blood Transfusion (1988- 1990) the first Australian to attain that position.

Dr Archer is remembered for his strong leadership, good judgement, common sense, technical expertise and bold decision making. He demonstrated a firm appreciation of research as a driving force for innovation and improvements in quality and safety. He faced major challenges in transfusion medicine during the eighties, introducing at times controversial measures to limit viral transmissions and protect the blood supply. He was a mentor to many and was highly regarded internationally for his farsightedness and courage. He will be sadly missed by his many colleagues and associates around the world.

Dr Gordon Archer was recognised in 1991 by the Australian Government with the award of Officer of the Order of Australia "for services to medicine, particularly in the field of Haematology". He is survived by his wife, Joy and his children, Sue, Martin, Tim and Megan.

In Memoriam

By: Pat Arndt and Gina Leger



Prof George Garratty

Professor Garratty died on 17 March 2014; he was born 2 July 1935. His original career plans were to attend the Royal Veterinary College in London and become a veterinarian, but students at that time were required to serve two years in the military first. While waiting to enter the Army Veterinary Corps, he applied for a summer job at Hammersmith Hospital in London. It just happened that Prof. Sir John Dacie (Dr. Dacie at the time), Chief of the Hematology Department, had some openings in his laboratory. Prof. Garratty became very excited about the fields of hematology and transfusion medicine and gave up the idea of becoming a veterinarian. He received his training in hematology/immunohematology at the Royal Postgraduate Medical School of London under Professors Sir John Dacie and Patrick L. Mollison, two pioneers in hematology and transfusion medicine. He received his Fellow of the Institute of Biomedical Sciences (FIBMS) in 1960, PhD in immunology in 1985, and Fellow of the Royal College of Pathologists (FRCPath) in 1990.

In 1968, Prof. Garratty came to the United States to carry out research on complement with Dr. Lawrence Petz in San Francisco, CA. They spent 10 years researching immune hemolytic anemia together, and published the first edition of their book *Acquired Immune Hemolytic Anemias* in 1980. In 1978, Prof. Garratty was recruited to start a Research Program at the American Red Cross Blood Services in Los Angeles, CA; as Scientific Director, he later became responsible for Reference Services (Red Cell and HLA/Platelet Immunology Laboratories) and Community Education (including a Specialist in Blood Banking Program). He was also a Clinical Professor of Pathology and Laboratory Medicine at the University of California, Los Angeles. Prof. Garratty's main research interest for 45 years was immune red cell and platelet destruction. He published more than 300 papers and was the editor of six textbooks and co-author of three textbooks, including the 2ND edition of *Immune Hemolytic Anemias* with Dr. Petz in 2004.

Prof. Garratty served on several committees, including the Standards, Annual Meeting, Nominations and Awards Committees of the AABB. He was an Associate Editor of *Transfusion* (1982 – 2013) and on the editorial boards of four other journals. He served as President of the California Blood Bank Society (1985-6) and represented North America on the International Society of Blood Transfusion Council. Prof. Garratty received numerous awards and lectureships at state, national and international levels. He was especially proud of two of them: 1) the James Blundell Award of the British Blood Transfusion Society in 2007, and 2) the Bernard Fantus Lifetime Achievement Award from the AABB in 2010 for Prof. Garratty's and Dr. Petz's lifelong work improving the understanding of immune hemolytic anemia.

Prof. Garratty saw dramatic changes in transfusion medicine during his lifetime – discovery of numerous blood group antigens, streamlining of pretransfusion testing, molecular testing, and changes in infectious disease testing. His curiosity and enthusiasm for science was infectious. He had a passion for the question and trying to solve problems, but was never afraid of admitting "I don't know". At the end of his Blundell lecture he said, "So many questions, so little time!" Education was very important to Prof. Garratty; he was very involved with educating people (of all levels) via consultations, lectures, publications and textbooks. He was always willing to answer a question or discuss a case, often looking up references. He trained and mentored many Specialists in Blood Banking and Transfusion Medicine Fellows.

Prof. Garratty was a consummate scientist, and also a warm and humorous man who was able to connect so well with anyone who came in contact with him. His presence among us will truly be missed.

