

# GSCN Annual Report



## Boards

### Executive Board

According to Section 8 (1) of the statute of the German Stem Cell Network (GSCN), the Executive Board comprised of the Acting President (Chair), the Senior President (1<sup>st</sup> Vice Chair), the Designated President (2<sup>nd</sup> Vice Chair), the Treasurer, and an Assessor. During the reporting period (Nov. 2014 – Sept. 2015), the Executive Board is made up of the following members:

**Acting President**  
(Chair)

**Prof. Dr. Dr. Thomas Braun**  
(Max Planck Institute for Heart and Lung Research, Bad Nauheim)  
E-mail: [office.braun@mpi-bn.mpg.de](mailto:office.braun@mpi-bn.mpg.de)

**Senior President**  
(1<sup>st</sup> Vice Chair)

**Prof. Dr. Andreas Trumpp**  
(German Cancer Research Center Heidelberg, DKFZ)  
E-mail: [a.trumpp@dkfz.de](mailto:a.trumpp@dkfz.de)

**Designated President**  
(2<sup>nd</sup> Vice Chair)

**Prof. Dr. Ulrich Martin** (Hannover Medical School)  
E-mail: [martin.ulrich@mh-hannover.de](mailto:martin.ulrich@mh-hannover.de)

**Treasurer**

**Dr. Michael Cross** (University of Leipzig)  
E-mail: [michael.cross@medizin.uni-leipzig.de](mailto:michael.cross@medizin.uni-leipzig.de)

**Assessor**

**Prof. Dr. Frank Emmrich** (TRM & University of Leipzig)  
E-mail: [frank.emmrich@medizin.uni-leipzig.de](mailto:frank.emmrich@medizin.uni-leipzig.de)



Executive Board: (from left) Ulrich Martin, Thomas Braun, Andreas Trumpp, Frank Emmrich, Michael Cross

### Executive Board during 2014

The GSCN offers its sincere appreciation to the members of the Executive Board during 2014 (Nov. 2013 – Nov. 2014). The Founding President Oliver Brüstle left the Executive Board due to rotation principle and was elected into the Extended Board.



GSCN boards and members of the Central Office

### Extended Board

According to Section 9 (1) of the statute of the German Stem Cell Network (GSCN), the Extended Board consists of up to 15 members. In the reporting period, the Extended Board is made up of the following members:

**Prof. Dr. Oliver Brüstle** (University of Bonn)  
E-Mail: [r.neuro@uni-bonn.de](mailto:r.neuro@uni-bonn.de)

**PD Dr. Tobias Cantz** (MH Hannover)  
E-Mail: [Cantz.Tobias@mh-hannover.de](mailto:Cantz.Tobias@mh-hannover.de)

**Dr. Micha Drukker** (Helmholtz Zentr. München)  
E-Mail: [micha.drukker@helmholtz-muenchen.de](mailto:micha.drukker@helmholtz-muenchen.de)

**Prof. Dr. Hartmut Geiger** (Ulm University)  
E-Mail: [hartmut.geiger@uni-ulm.de](mailto:hartmut.geiger@uni-ulm.de)

**Prof. Dr. Magdalena Götz** (LMU Munich)  
E-Mail: [magdalena.goetz@helmholtz-muenchen.de](mailto:magdalena.goetz@helmholtz-muenchen.de)

**Ira Herrmann** (Stem Cell Network NRW)  
E-Mail: [herrmann@stemcells.nrw.de](mailto:herrmann@stemcells.nrw.de)

**Prof. Dr. Jürgen Hescheler** (Uni. Hospital Cologne)  
E-Mail: [j.hescheler@uni-koeln.de](mailto:j.hescheler@uni-koeln.de)

**Prof. Dr. Ana Martin-Villalba** (DKFZ Heidelberg)  
E-Mail: [a.martin-villalba@dkfz.de](mailto:a.martin-villalba@dkfz.de)

**Prof. Dr. Albrecht Müller** (University of Würzburg)  
E-Mail: [albrecht.mueller@mail.uni-wuerzburg.de](mailto:albrecht.mueller@mail.uni-wuerzburg.de)

**Prof. Dr. Michael Rieger** (Goethe Uni. Frankfurt)  
E-Mail: [m.rieger@em.uni-frankfurt.de](mailto:m.rieger@em.uni-frankfurt.de)

**Prof. Dr. Ingo Röder** (TU Dresden)  
E-Mail: [ingo.roeder@tu-dresden.de](mailto:ingo.roeder@tu-dresden.de)

**Prof. Dr. Hans R. Schöler** (MPI for Mol. Biomed.)  
E-Mail: [office@mpi-muenster.mpg.de](mailto:office@mpi-muenster.mpg.de)

**Prof. Dr. Elly Tanaka** (CRT-Dresden)  
E-Mail: [elly.tanaka@crt-dresden.de](mailto:elly.tanaka@crt-dresden.de)

**Prof. Dr. Mathias Treier** (MDC Berlin)  
E-Mail: [mathias.treier@mdc-berlin.de](mailto:mathias.treier@mdc-berlin.de)

**Prof. Dr. Claudia Waskow** (TU Dresden)  
E-Mail: [claudia.waskow@tu-dresden.de](mailto:claudia.waskow@tu-dresden.de)

## Working group initiators

### Scientific working groups

<b>Pluripotency and reprogramming</b>	Dr. Micha Drukker Prof. Dr. Hans Schöler Prof. Dr. Mathias Treier
<b>Somatic stem cells and development</b>	Prof. Dr. Dr. Thomas Braun Prof. Dr. Elly Tanaka
<b>Basic, translational and applied hematopoiesis</b>	Prof. Dr. Timm Schroeder (ETH Zurich, Basel) E-Mail: <a href="mailto:timm.schroeder@bsse.ethz.ch">timm.schroeder@bsse.ethz.ch</a> Prof. Dr. Claudia Waskow
<b>Stem cells in diseases (cancer stem cells)</b>	Prof. Dr. Thomas Brabletz (Uni. Medical Center Freiburg) E-Mail: <a href="mailto:thomas.brabletz@uniklinik-freiburg.de">thomas.brabletz@uniklinik-freiburg.de</a> Prof. Andreas Trumpp
<b>Stem cells in regenerative therapies</b>	Dr. Michael Cross Prof. Dr. Ulrich Martin
<b>Stem cells in disease modeling and drug development</b>	Prof. Dr. Oliver Brüstle Prof. Dr. Karl-Ludwig Laugwitz (Uni. Clinic r.d.I., Munich) E-Mail: <a href="mailto:klaugwitz@med1.med.tum.de">klaugwitz@med1.med.tum.de</a>
<b>Computational stem cell biology</b>	Prof. Dr. Georg Füllen (IBIMA Rostock) E-Mail: <a href="mailto:fuellen@uni-rostock.de">fuellen@uni-rostock.de</a> Prof. Dr. Ingo Röder (TU Dresden)

### Strategic working groups

<b>Funding programs and policies</b>	Prof. Dr. Ulrich Martin Prof. Dr. Albrecht Müller Acting GSCN President (ex-officio)
<b>Career development</b>	Prof. Dr. Hartmut Geiger (Ulm University) Prof. Dr. Jürgen Hescheler Dr. Insa Schröder (GSI, Darmstadt) E-Mail: <a href="mailto:i.schroeder@gsi.de">i.schroeder@gsi.de</a>
<b>Clinical trials and regulatory affairs</b>	Dr. Andreas Kurtz (BCRT, Berlin) E-Mail: <a href="mailto:andreas.kurtz@charite.de">andreas.kurtz@charite.de</a> Prof. Dr. Torsten Tonn (Inst. F. Transfus. Med., Dresden) E-Mail: <a href="mailto:t.tonn@blutspende.de">t.tonn@blutspende.de</a> Prof. Dr. Hans-Dieter Volk (BCRT, Berlin) E-Mail: <a href="mailto:hans-dieter.volk@charite.de">hans-dieter.volk@charite.de</a>
<b>Public engagement and outreach activities</b>	PD Dr. Tobias Cantz Ira Herrmann
<b>Patient information (stem cell therapies)</b>	Dr. Gisela Badura-Lotter (Ulm University) E-Mail: <a href="mailto:gisela.badura@uni-ulm.de">gisela.badura@uni-ulm.de</a> Ira Herrmann
<b>Stem cell technologies</b>	Dr. Andreas Bosio (Miltenyi GmbH, Bergisch Gladbach) E-Mail: <a href="mailto:andreas.bosio@miltenyibiotec.de">andreas.bosio@miltenyibiotec.de</a> Prof. Dr. Frank Emmrich

## Facts and figures

### Meetings

#### Executive Board meetings

The Executive Board of the GSCN regularly holds meetings and telephone conferences. These meetings are coordinated and organized by the Central Office. The following Executive Board meetings took place in the reporting year:

- Video conference (15 July 2014)
- Meeting, 3 Nov. 2014, in Heidelberg

#### Extended Board meeting

- 3 Nov. 2014, in Heidelberg

#### General Assembly

- 3 Nov. 2014, in Heidelberg

### Overview of members in 2014

<b>Total no. of members</b>		<b>344</b>
Natural persons	Full members	197
	Junior members	122
Legal persons	Research institutes	14
	Companies with more than 20 full-time staff	3
	Companies with fewer than 20 full-time staff	7
	Partner societies	1
<b>Membership cancelations in 2014</b>		<b>27</b>
<b>Members of the working groups</b>		
Scientific working groups	Pluripotency and reprogramming	187
	Somatic stem cells and development	149
	Basic, translational and applied hematopoiesis	52
	Stem cells in diseases (cancer stem cells)	140
	Stem cells in regenerative therapies	187
	Stem cells in disease modeling and drug development	127
	Computational stem cell biology	20
Strategic working groups	Funding programs and policies	124
	Career development	125
	Clinical trials and regulatory affairs	104
	Public engagement and outreach activities	62
	Patient information (stem cell therapies)	17
	Stem cell technologies	184

Last updated 26.03.2015



### Institute members

- Berlin-Brandenburg Center for Regenerative Therapies (BCRT)
- Center for Regenerative Therapies Dresden (CRTD)
- German Cancer Research Center (DKFZ), Heidelberg
- Fraunhofer Research Institution for Marine Biotechnology (Fraunhofer EMB), Lübeck
- Fraunhofer Institute for Cell Therapy and Immunology (Fraunhofer IZI), Leipzig
- Leibniz Institute for Age Research / Fritz Lipmann Institute (FLI), Jena
- Max Delbrück Center for Molecular Medicine (MDC), Berlin-Buch
- Max Planck Institute for Heart and Lung Research (MPI-HLR), Bad Nauheim
- Max Planck Institute for Molecular Genetics (MPIMG), Berlin
- REBIRTH Cluster of Excellence, Hannover Medical School
- Collaborative Research Center SFB 873, Department of Medicine V, Heidelberg University Hospital
- Tissue Engineering und Regenerative Medicine (TERM), University Hospital of Würzburg

### Company members

- AMS Biotechnology (Europe) Ltd.
- Biological Industries
- Eppendorf AG
- Essen BioScience Ltd.
- Hexcell Berlin GmbH
- HI-STEM gGmbH
- Life Technologies GmbH
- PELOBiotech GmbH
- PeproTech GmbH
- Takara Bio Europe S.A.S.

### Partner Societies

- Deutsche Gesellschaft für Transfusionsmedizin und Immunhämatologie (DGTI) e.V.

### GSCN General Assembly

Ninety-seven members attended the second General Assembly of the GSCN, held on 3 Nov. 2014 during the 2<sup>nd</sup> Annual Conference in Heidelberg. The minutes of the assembly and the presentation that formed part of it can be downloaded from the members' area of the website. The Executive Board and the Extended Board were re-elected (see above) and the auditors formally approved the actions of the association. President Andreas Trumpp urged GSCN members to be more active in exercising their democratic rights – only 21 percent (73 out of 349 members) had voted in the online elections.



Members' meeting 2014

## Activities in 2014

In 2013, its first year, the German Stem Cell Network (GSCN) moved from an idea to reality, becoming an association with a central office, a successful annual conference, and a network of working groups based on a clear vision of the GSCN's mission.

In 2014 the task was to add vitality to this structure. And the initial verdict must surely be that this has been achieved. Crucially, the Federal Ministry of Education and Research (BMBF) approved funding for the next three years. During this time, the GSCN will demonstrate how it intends to place this independent, wide-ranging, growing and successful network on a firm footing. Growth was the watchword for 2014 – membership of the GSCN grew by a quarter. The number of institutes and companies involved in the network also rose. The activities of the GSCN in 2014 are summarized below, divided in accordance with the association's objectives into network activities and communication.

### The network

Conferences are the ideal place for networking. They form a meeting place for large numbers of scientists and represent an opportunity to exchange newly gathered data, discuss exciting findings, present the results of time-consuming work, learn about unfamiliar methods and ways of thinking – and make contact with friendly and inspiring people. The second GSCN conference was perfect proof of this: from 3 – 5 Nov. 2014 some 450 scientists came together in Heidelberg and discussed stem cells from every perspective. This gathering of stem cell researchers demonstrated that even at this early stage the **GSCN's annual conferences** have become valuable and useful focal points for scientists (see detailed conference report, page 14).

The GSCN not only held its own annual conference but was also represented at many conferences and symposiums of other organizations. For example, a symposium on neural stem cells, organized jointly with the **BMBF-funded Independent Research Groups in Neurosciences**, was held immediately after the GSCN annual conference (5 – 6 Nov. 2014) and was attended by 150 delegates. The **working groups of the GSCN** were also involved in satellite symposiums and sessions at other conferences in 2014. At the 5<sup>th</sup> International Congress for Stem Cells and Tissue Formation, Elly Tanaka and Frederico Calegari of the "Somatic stem cells and development" working group organized a **satellite symposium on "Neuronal Stem Cells in Evolution"** (8 July 2014, Dresden). At the annual meeting of the German Society for Transfusion Medicine and Immunohematology (DGTI) in Dresden on 9 – 12 Sept. 2014, the "Stem cells in regenerative therapies" working group organized a satellite session on **stem cell research in Germany**, and the "Clinical trials and regulatory affairs" working group supported a

**workshop on advanced therapy medical products (ATMP)** run by the European Medicines Agency (EMA).

At the 2014 **ISSCR Annual Meeting** (18 – 21 June, Vancouver), the second **GSCN Meet-up Hub** was held for the attending GSCN members and guests. Daniel Besser attended the ISCI/ISCBI workshop of the **International Stem Cell Forum (ISCF)** on the standardization of pluripotency in Vancouver (22 June 2014) on behalf of the GSCN. The institutional network also grew: collaboration with other organizations expanded further in 2014. For example, the Regenerative Medicine Initiative Germany (RMIG) ran a **workshop on animal models in stem cell research**, and the German Society for Stem Cell Research (GSZ) held a scientific session and its general assembly at the GSCN Annual Conference 2014.

Throughout the year there was close **collaboration** with the Stem Cell Network North Rhine Westphalia, EuroStemCell, and the ISSCR. For example, the Stem Cell Network North Rhine Westphalia and the GSCN joined forces to run a **workshop on the subject "Big pharma and the stem cell field – matching expectations?"** at the 2014 GSCN Annual Conference. The partnership with **EuroStemCell** involved contribution of content, translation, proofreading, and improvements to teaching materials. The **working group "Computational stem cell biology"** organized a workshop on mathematical and computer-based methods of model development in modern stem cell research 1 – 2 Dec. 2014, Dresden). Attendees devised methods for modeling large quantities of data.

The working groups give structure to the GSCN's networking activities. In 2014 Claudia Waskow (Dresden) and Timm Schroeder (Basel) set up a new scientific working group – now the association's seventh – on **"Basic, translational and applied hematopoiesis"**. Overall, the working groups are very active. Nevertheless, the involvement of the individual groups could be strengthened. Therefore, starting from 2015 there will be **non-PI meetings** at which the members of a working group can get together informally in a central location in Germany, with presentations by participants. The aim is to stimulate one-to-one contact and professional dialogue between peers and to encourage the development of other bottom-up network structures. In 2014, the **Travel Award** scheme, which defrays the costs of attending a conference, was operated via the working groups and the GSCN Central Office. Three young scientists received awards for travel to the Hydra X. Summer School in Greece and reported enthusiastically on their experience (see "GSCN News", page 12).

### Communication

The GSCN aims to function publicly as an interface between science, policy-making, education and society in all matters of stem cell research. In July



2014 it therefore appointed journalist Stefanie Mahler as Communication Coordinator at the Central Office. Her first task was to produce **three films about the researchers Magdalena Götz (Munich), Andreas Trumpp (Heidelberg), and Antony D. Ho (Heidelberg) and their different approaches to stem cell research**. These films opened the **public outreach event “Stem cells as opportunity - Reality and prospects”** that was sponsored by the DKFZ and the Ernst Schering Foundation and concluded the 2<sup>nd</sup> Annual Conference in Heidelberg (5 Nov. 2014). The films and the accompanying panel discussion met with a very positive response from the 120 visitors who attended. Key issues raised in the discussion were the translation of research findings into the concrete development of therapies, and assessment of the time scale involved. The GSCN films can be watched online on the website and YouTube.

Methods through which the GSCN can reach a broad public include not only films, digital and print media but also events, study groups and collaborative ventures. For example, on 16–17 Sept. 2014 the strategic working groups “Public engagement and outreach activities” and “Patient information” organized a **two-day workshop** in Hannover at which **20 science communicators** discussed stem cell research materials and ways of communicating with schools and interested members of the public. For this meeting a leaflet entitled **“Explaining stem cells”** (in German) and detailing selected materials that explore the biological, social and ethical aspects of stem cell research was produced and distributed throughout Germany. The meeting triggered the formation of the **group “Communication on Stem Cell Research”**, a dialog and support network whose members will meet annually. A key concern of all members is to maintain a flow of new, improved and purpose-specific activities and information for the interested public.

At the **Long Night of the Sciences** in Berlin, Daniel Besser and his team presented “A journey into the world of stem cells”, which had visitors hopping enthusiastically through EuroStemCell’s cell differentiation game, picking up information materials, and positioning organs and associated cell types on a magnetic game board (10 May 2014).

Public outreach is always tailored to particular target groups, and students in schools are an important such group, since they are the citizens and decision-makers of the future. But another reason for targeting them is that stem cell research is covered in only a very rudimentary fashion in textbooks and curricula. Daniel Besser’s talk on stem cell research at the youth science competition **“Jugend forscht”** (25 Sept. 2014) was addressed to gifted young people interested in the natural sciences, while **teachers** took part in a **training session** on stem cells and the current state of research at the German Bundestag (4 Dec. 2014). Further activities included also a **science event at the gymnasium Erkner** (28 Jan. 2015), an event **“Ethics forum: stem cell research and reproduction biology”** with the education center “Haus Kreisau” (29 Jan. 2015) and participation in the **“Hauptstadtforum 2015” of the MINT-EC**, an excellence network of schools in Germany.

Communication via **social media** is another topic of discussion within the GSCN. In accordance with its wish to communicate via a variety of channels, it has set up a **Twitter** account and developed its own mobile app **GSCN Navigator**. The app was launched and tested at the annual conference in Heidelberg, where it enabled delegates to view the talks, abstracts, sessions and speakers’ contact details on mobile devices and to organize and utilize the information. The app is still in use and will be employed again at the 2015 conference. The GSCN Central Office used e-mail to send **newsletters** to its members and supporters and circulate details of calls for proposals, conferences, grants and workshops. Development of



First meeting of the new workshop “Communication of Stem Cell Research” in Hannover





Long Night of Sciences, Berlin

the **GSCN website** also continued with an updated news column, PDF versions of the annual magazine in English and German, and information on a variety of aspects of stem cell research. The GSCN Central Office and the GSCN website ([www.gscn.org](http://www.gscn.org); 2014: 18,000 visits by 9,500 users) were a central port of call for anyone interested in stem cell research. Enquiries about the current state of research are regularly received from **journalists, patients, teachers and students** and are answered by office staff with the help of scientists. The website provides an overview of materials and information on stem cell research available on the Internet. The major printed publication produced by the GSCN was a bilingual **annual magazine** containing an extensive editorial section on stem cell research in Germany and a section on the GSCN. The second of these annual magazines, this time focusing on stem cell technology, is now before you. Also available on the GSCN website are films that the association has produced for information and as visual aids.

On the international front, the GSCN was actively involved in the **European project EuroStemCell**, in which it acted both as an advisor and as a translator of factsheets on stem cell research and human diseases. It also played an active part in EuroStemCell's renewed application for funding from the European Commission, which was approved in September 2014 for the coming three years. The kick-off event for the new funding period with the 30 European partners took place on 18–19 Feb. 2015 in Brussels. Here, Daniel Besser undertook coordination of a work package aimed at developing active interaction with the public in European countries. This will improve international coordination of the production and use of information materials on stem cell research. There was likewise additional coordination with the **International Society for Stem Cell Research (ISSCR)**.

On the European policy level, the GSCN supported the **Joint Institute for Innovation Policy (JIIP)** by providing advice on stem cell research for a workshop on future innovation projects with Daniel Besser as speaker and advisor on major innovations (17 Nov. 2014 and 12 Feb. 2015). The GSCN was actively involved in the Wellcome Trust's declaration to European MPs and the European Commission in connection with the **citizens' initiative "One-of-Us"**. The initiative organized a petition opposing the further funding of research involving human embryonic stem cells. The Wellcome Trust's declaration, which emphasizes the importance of this research, was widely supported by the scientific community. The European Commission has now decided to continue funding research under the same conditions as before.

In the wake of the Heidelberg conference, the GSCN was particularly in the **public spotlight**, with various articles appearing in regional newspapers (*Rhein-Neckar-Zeitung*, *Stuttgarter Zeitung*), the national newspaper *Die Welt*, online biotechnology journals, and other online media.

## Finances

The GSCN is a non-profit organization funded by **membership subscriptions** and **a grant from the BMBF**. Under Section 4 of its statute, the level of subscriptions is set by subscription rules adopted at the General Membership Meeting. Subscriptions are detailed on the GSCN's membership form.

The business year is the calendar year. Subscriptions are due at the start of the business year. The Executive Board is responsible for producing the annual accounts and submitting them to the General Membership Meeting. Details of the association's finances are provided at the Membership Meetings.