# GSCN Annual Report

## **Mission und Synopsis**

#### Mission

The German Stem Cell Network (GSCN) aims to create synergies between all areas of basic and applied stem cell research and to provide an interface between science, education, politics and society as a whole.

#### **Synopsis**

The central task of the GSCN is to pool expertise in stem cell research in Germany and develop synergies between basic research, regenerative medicine and pharmacology. The initiative will promote innovative research activities on a national and international level. In addition, targeted information and events will be developed to encourage public discourse on stem cell research.

#### **Boards**

#### **Executive Board**

According to Section 8 (1) of the statute of the German Stem Cell Network (GSCN), the Executive Board is 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 (November 2013 – November 2014), the Executive Board is made up of the following people:

Acting President (Chair)	Prof. Dr. Andreas Trumpp (DKFZ Heidelberg) E-mail: a.trumpp@dkfz.de
<b>Senior and Founding President</b> (1 <sup>st</sup> Vice Chair)	Prof. Dr. Oliver Brüstle (University of Bonn) E-mail: r.neuro@uni-bonn.de
<b>Designated President</b> (2 <sup>nd</sup> Vice Chair)	Prof. Dr. Dr. Thomas Braun (MPI f. Heart and Lung Research, Bad Nauheim) E-mail: office.braun@mpi-bn.mpg.de
Treasurer	Dr. Michael Cross (University of Leipzig) E-mail: michael.cross@medizin.uni-leipzig.de
Assessor	Prof. Dr. Frank Emmrich (TRM & University of Leipzig) E-mail: frank.emmrich@medizin.uni-leipzig.de



Founding members of the executive board: A. Trumpp, F. Emmrich, O. Brüstle, D. Besser (absent: A. Müller)

#### **Executive Board of the founding period 2013**

The GSCN offers its sincere thanks to the members of the Executive Board during the founding period (May 2013 – November 2013):

Acting President	Prof. Dr. Oliver Brüstle
Senior President (from Nov. 2013 in the Extended Board)	<b>Prof. Dr. Albrecht Müller</b> (University of Würzburg) E-mail: albrecht.mueller@uni-wuerzburg.de
Designated President	Prof. Dr. Andreas Trumpp
<b>Treasurer</b> (fom Nov. 2013 provisional Managing Director)	<b>Dr. Daniel Besser</b> (GSCN & MDC, Berlin) E-mail: d.besser@mdc-berlin.de
Assessor	Prof. Dr. Frank Emmrich

#### **Extended Board**

According to Section 9 (1) of the statute of the GSCN, the Extended Board comprises up to 15 people. Through decision of the Founding Meeting on May 7, 2013, all founding members not elected to the Executive Board were appointed to the Extended Board. During the reporting period, the Extended Board is constituted of the following people:

PD Dr. Tobias Cantz (MH Hannover)	<b>Dr. Micha Drukker</b> <sup>1</sup> (Helmholtz Cent. Munich)
E-mail: Cantz.Tobias@mh-hannover.de	E-mail: micha.drukker@helmholtz-muenchen.de
<b>Prof. Dr. Magdalena Götz</b> (LMU Munich)	Ira Herrmann (Stem Cell Network NRW)
E-mail: magdalena.goetz@helmholtz-muenchen.de	E-mail: herrmann@stemcells.nrw.de
<b>Prof. Dr. Jürgen Hescheler</b> (Univ. of Cologne)	<b>Prof. Dr. Ulrich Martin</b> (MH Hannover )
E-mail: j.hescheler@uni-koeln.de	E-mail: martin.ulrich@mh-hannover.de
<b>Prof. Dr. Ana Martin-Villalba</b> <sup>1</sup> (DKFZ Heidelberg) E-mail: a.martin-villalba@dkfz.de	Prof. Dr. Albrecht Müller <sup>1</sup>
<b>Prof. Dr. Hans R. Schöler</b> (MPI for mol. Biomed.)	<b>Prof. Dr. Elly Tanaka</b> (CRT Dresden)
E-mail: office@mpi-muenster.mpg.de	E-Mail: elly.tanaka@crt-dresden.de

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

<sup>1</sup> from November 2013

## Working Group Initiators

## Scientific working groups

Pluripotency and re-programing	Dr. Micha Drukker
That potency and re programming	Prof. Dr. Hans Schöler
	Prof. Dr. Mathias Treier
	FIOL DI. Matinas freici
Somatic stem cells and development	Prof. Dr. Dr. Thomas Braun
	Prof. Dr. Elly Tanaka
Stem cells and diseases	Prof. Dr. Thomas Brabletz (University of Freiburg)
(cancer stem cells)	E-mail: thomas.brabletz@uniklinik-freiburg.de
	Prof. Dr. Andreas Trumpp
Stem cells in regenerative therapies	Dr. Michael Cross
	Prof. Dr. Ulrich Martin
Stem cells in disease modeling and	Prof. Dr. Oliver Brüstle
drug development	Prof. Dr. Karl-Ludwig Laugwitz (Clinic r.d.l. TU Munich)
	E-mail: klaugwitz@med1.med.tum.de
Computational stem cell biology	Prof. Dr. Georg Fuellen (IBIMA Rostock)
	E-mail: fuellen@uni-rostock.de
	Prof. Dr. Ingo Röder (TU Dresden)
	E-mail: ingo.roeder@tu-dresden.de
Strategic working groups	
Funding programs and policies	Prof. Dr. Ulrich Martin
	Prof. Dr. Albrecht Müller
	Acting GSCN President (ex officio)
Caroor dovelopment	Prof. Dr. Hartmut Coigar (University of Ulm)
Career development	Prof. Dr. Hartmut Geiger (University of Ulm)
	E-mail: hartmut.geiger@uni-ulm.de
	Prof. Dr. Jürgen Hescheler
	Dr. Insa Schröder (GSI Helmholtzz. f. Schwerion.forsch.)
	E-mail: i.schroeder@gsi.de
Public engagement and	PD Dr. Tobias Cantz
outreach activities	Ira Herrmann
Patient information	Dr. Gicela Radura Letter (University of Ulm)
	Dr. Gisela Badura-Lotter (University of Ulm)
(stem cell therapies)	E-mail: gisela.badura@uni-ulm.de
	Ira Herrmann
Clinical trials and	Dr. Andreas Kurtz (BCRT Berlin)
regulatory affairs	E-mail: andreas.kurtz@charite.de
	Prof. Dr. Torsten Tonn (Inst. f. Transfus. Med. Dresden)
	E-mail: t.tonn@blutspende.de
	Prof. Dr. Hans-Dieter Volk (BCRT Berlin)
	E-mail: hans-dieter.volk@charite.de
Stem cell technologies	Dr. Andreas Bosio (Miltenyi, Bergisch Gladbach)
	E-mail: andreas.bosio@miltenyibiotec.de
	Prof. Dr. Frank Emmrich

## **Facts and Figures**

#### Meetings

#### **Meetings of the Founding Committee**

- Meeting of the Founding Committee on March 20, 2013 in Frankfurt
- GSCN Kick-off Meeting on April 24, 2013 in Cologne
- Founding Meeting on May 7, 2013 in Frankfurt

#### **Meetings of the Executive Board**

The Board of the GSCN meets at regular intervals or takes part in telephone conferences. The meetings are coordinated and organized by the coordination office. The following meetings of the Executive Board took place during the reporting year:

- Video conferences (June 6/13 and July 22, 2013)
- November 11, 2013 in Berlin

#### **Meetings of the Extended Board**

• November 11, 2013 in Berlin

#### **Members' Meeting**

• November 12, 2013 in Berlin

#### **Overview of members in 2014**

Total members		287		
Natural persons	Full members	168		
	Students	99		
Corporate bodies	Research institutes	12		
	Companies > 20 members in full-time employment	2		
	Companies ≤ 20 members in full-time employment	5		
	Partner societies	1		
Members of the working groups				
Scientific working groups	Pluripotency and re-programing	156		
	Somatic stem cells and development	126		
	Stem cells in diseases (cancer stem cells)	124		
	Stem cells in regenerative therapies	152		
	Stem cells in disease modeling and drug development	110		
	Computational stem cell biology	6		
Strategic working groups	Funding programs and policies	107		
	Career development	105		
	Public engagement and outreach activities	88		
	Patient information (stem cell therapies)	62		
	Clinical trials and regulatory affairs	16		
	Stem cell technologies	157		

As of 02/28/2014



Founding meeting on May 7, 2014; from left:: U. Martin, F. Emmrich, M. Treier, I. Herrmann, O. Brüstle, E. Tanaka, D. Besser, A. Trumpp, T. Cantz, H. Schöler

#### **Institute members**

- Berlin-Brandenburg Center for Regenerative Therapies (BCRT)
- Center for Regenerative Therapies Dresden (CRTD)
- German Cancer Research Center, Heidelberg (DKFZ)
- Fraunhofer Institution for Marine Biotechnology (Fraunhofer EMB), Lübeck
- Fraunhofer Institute for Cell Therapies and Immunology (Fraunhofer IZI), Leipzig
- Institute for Reconstructive Neurobiology, University of Bonn
- 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
- SFB 873, Centre for Organismal Studies (COS), Heidelberg
- Tissue Engineering and Regenerative Medicine (TERM), University Clinic Würzburg

#### **Company members**

- AMS Biotechnology (Europe) Ltd.
- Eppendorf AG
- Essen BioScience Ltd.
- HI-STEM gGmbH
- Life Technologies GmbH
- PELOBiotech GmbH

#### **Partner Societies**

• Deutsche Gesellschaft für Transfusionsmedizin und Immunhämatologie (DGTI) e.V. (German Society for Transfusion Medicine and Immunohematology)

## Foundation and Structure of the GSCN

Based on a call by the Federal Ministry of Education and Research (BMBF) to "set up a discussion platform for stem cell research," the GSCN was founded as a registered association (e.V. = eingetragener Verein) in Berlin on May 7, 2013 and on September 25, 2013 was entered in the register of associations at the local court of Charlottenburg/Berlin under the number VR 32698 B. The objective of the association is to promote science, research and education, in particular in the field of stem cell research, basic research and their application. Individual tasks and purposes derive from the statute of the GSCN. The GSCN's current statutes of July 2013 can be downloaded from the GSCN website (www.gscn.org). The founding of the GSCN was preceded by a national discourse with German cell stem researchers on the content and objectives of the GSCN, which took place during a meeting of the founding committee in Frankfurt (March 20, 2013) and through online surveys (April 15 – June 30, 2013). 148 scientists, 13 institutes and 20 companies took part in the online surveys. 81% of those surveyed said that it was highly likely they would want to become members of the GSCN, with 69% prepared to engage actively in working groups (37%) and committees (25%). The organization of an annual conference was considered to be very important by 88% of those surveyed. The high number of scientists attending the 1st Annual Conference of the GSCN (November 11 - 13, 2013) also indicates the need for networking in general and in particular for the opportunity to exchange ideas and information on specific topics.

Members began joining in July 2013; by February 2014 the total had reached 287. Following members' suggestions, during the reporting period the Executive Board set up six scientific and six strategic working groups which are led by the initiators. In the future they will be supervised by coordinators who are appointed jointly by the Executive and Extended Boards or who are elected by the members of the working groups

#### Communication

An initial flyer about the network and a temporary website were published in April 2013; the website was relaunched on October 8, 2013. The network's website (www.gscn.org) is designed to address the various target groups (scientists, members, journalists, patients, the public) and provide them with appropriate information. The click rate for the GSCN website far exceeded expectations, even considering the extensive range of information that it offered, with 13,600 visits from 6,300 different visitors (IP addresses). It is used nationally (74% of visitors) and internationally (26%). Since December 2013, nine short films have been made about the work and structure of the GSCN. They are available on the GSCN website and include a film with highlights of the 1<sup>st</sup> Annual Conference of the GSCN, brief interviews with Oliver Brüstle on the founding of the GSCN, Andreas Trumpp on the future of the GSCN, Tobias Cantz on outreach programs, Frank Emmrich on regenerative medicine and stem cell research, Insa Schröder on career development, Elly Tanaka on international interactions, Daniel Besser on the structure of the GSCN, and Albrecht Müller on the situation of funding for stem cell research. By March 2014 the films had been viewed more than 530 times and they illustrate the design of the overall communication concept.



GSCN HOMEpuge "www.gscn.or

Interaction of the members is already possible to a degree with the GSCN members' portal (www.vereinonline.org/GSCN) to ensure a dynamic exchange of information. Every member can set up a profile in the members' portal and can update and customize it at any time. The members decide themselves what data should be visible to other members. This profile can also be used for changes to an individual's affiliation to working groups. There is a simple discussion forum where members can communicate with each other individually and within the working groups. It is also possible to call up the lists of members for individual working groups and the profiles of the other members; members can contact each other using an e-mail form.

The plan is to further develop the interactive facilities of the website. This goal emerged from the working group discussions held during the first Annual Conference of the GSCN, where the participants expressly requested the establishment of an interactive communications platform, which would be of particular benefit to young scientists, with a greater functional capacity to exchange and discuss methods and technical questions. Also envisaged are a jobs portal covering Germany, and information portals for bachelor- and master-level students who wish to read up on topics such as laboratory placements in the field of stem cell research. The design of content for this and other forums will be suggested by the members (during the work carried out by the working groups) and will be implemented in conjunction with the members of the coordination office. Based on member profiles, the coordination office will also create a database of experts from which it will be possible to identify the proper contact for queries relating to media, schools, patient groups and policies. The profiles will be created based on information provided independently by each scientist.

The website for the 1st Annual Conference of the GSCN was launched on July 1, 2013. The online registration of participants and the submission of abstracts was handled using the virtual congress manager "vCongress" supplied by SciSerTec GbR, headquartered at Hanover Medical School (MHH). Respondents to the online survey on the 1st Annual Conference of the GSCN rated the system as very good, giving it 4.29 points out of 5. Please see the separate article 'The GSCN Annual Conferences' on page 11 ff. for further results of the online survey and information on the 1st Annual Conference of the GSCN.

#### Online Elections for the 2013 Board and 1st Members' Meeting of the GSCN

The 1<sup>st</sup> Members' Meeting of the GSCN, which was held in the Max Delbrück Center for Molecular Medicine (MDC) on November 12, in Berlin, took place during the 1st Annual Conference of the GSCN (November 11 – 13, 2013) with 150 of 271 members (55%) attending. The minutes and the presentation on the Members' Meeting can be downloaded at the members' portal. The Members' Meeting was preceded by online elections to the Board, which were conducted from October 1 – 29, 2013 using a certified online voting system supplied by Polyas GmbH. 71 of the 164 members (membership status on September 30, 2013) with voting rights (43%) took part in the online elections. The Designated President for 2014, the Treasurer and three other members were elected to the Extended Board from a pool of candidates previously proposed by the members. After approving the actions of the Executive Board, the following members were welcomed to the Executive and Extended Boards in their new positions: Andreas Trumpp (Acting President and Chair November 2013 – November 2014), Oliver Brüstle (Senior President and 1<sup>st</sup> Vice Chair 2013/14) Thomas Braun (Designated President and 2<sup>nd</sup> Vice Chair 2013/14), Michael Cross (Treasurer November 2013 – November 2016) in addition to



1st Members' Meeting of the GSCN on 12 November 2013 in Berlin



Albrecht Müller, Micha Drukker and Ana Martin-Villalba (Extended Board). Hartmut Geiger (Ulm) and Hannes Klump (Essen) were elected at the Members' Meeting as annual accounts auditors for the next Members' Meeting.

#### **Outreach Activities**

Regular participation in and organization of public events for the general public, schools and journalists should facilitate the efficient transfer of knowledge from research into the public domain. The intention is to contribute towards public opinion while taking into account ethical and legal questions. The GSCN has set itself the target of equally representing all areas of stem cell research. In addition to expertise in the natural sciences and biomedicine, the network also has access to clinical expertise. Future plans include adding experts from the fields of ethics, law and the social sciences by means of the advisory board and the database of experts. The network thus represents a competent and objective point of contact for politics, the media, commerce, patients and other stakeholders.

In 2013, Daniel Besser represented the network at 4 public events and 9 national and international scientific meetings.



GSCN information booth and stem cell game from EuroStemCell at the 60 Years of DNA event for teachers and students

#### **Public Events:**

- The Long Night of Science, June 8, 2013 in Berlin
- 60 Years of DNA, September 13 – 14, 2013 in Berlin
- Capital forum MINT 400 of MINT-EC, November 28, 2013 in Berlin
- Series of advanced education for teachers and students 'Perspectives in the life sciences', January 7, 2014 in Berlin

#### **Press Contact**

A press conference was held during the Founding Meeting on May 7, 2013, and a press meeting was organized at the 1st GSCN Annual Conference on November 12, 2013. Overall during the reporting period, the GSCN coordination office handled more than 20 direct enquiries from journalists for comments on current events and led to more than 20 published items in the press.



l: Press meeting at the Annual Conference (11/12/2013), r: Press conference at the founding meeting (05/07/2013)



Daniel Besser and Dorota Kaniowska

#### **Scientific Events:**

- 11<sup>th</sup> Annual Meeting of the International Society of Stem Cell Research (ISSCR), June 11 - 15, 2013 in Boston
- 8<sup>th</sup> Annual Meeting of the Society for Stem Cell Research [Gesellschaft für Stammzellforschung (GSZ)], September 6 - 7, 2013 in Rostock
- International Meeting of the Section 'The Didactics of Biology' [Fachsektion Didaktik der Biologie (FDdB)] in VBio, September 16 - 19, 2013 in Kassel
- *Stem Cell Symposium*, 30 September – October 1, 2013 in Würzburg
- Herrenhausen Symposium on Stem Cells and Regenerative Medicine, October 8 - 10, 2013 in Hanover
- Conference "Chromatin Dynamics & Stem Cells", October 17 - 20, 2013 in Mainz
- World Conference on Regenerative Medicine (WCRM), October 23 25, 2013 in Leipzig

During the WRCM 2013, the GSCN awarded a Poster Prize for Basic Stem Cell Research to Dorota Kaniowska (Translational Centre for Regenerative Medicine (TRM), Regulatory Molecules & Delivery Systems, Leipzig) for the abstract *"The therapeutic potential of miRNA 665 and its modulatory effect on osteogenic differentiation of murine embryonic stem cells."* 

#### **Activities of the Working Groups**

The working groups determine the content of the topic-specific sessions at the annual conference and in the future they should conduct their own meetings and workshops (e.g. for specific target groups such as young scientists and also jointly with partners from industry), in addition to and independent of the annual conference. The goal of the working group structure is to ensure the participation of scientists with quite varied backgrounds and topical interests and also to disseminate the latest research techniques and aims. Scientists at all stages of their careers are called on to cooperate in the working groups to help shape the substance of the work and activities of the GSCN *(bottom-up* approach). In terms of content, the working groups are divided into scientific and strategic topics.

The members in the **scientific working groups** will discuss the most recent research activities and interact in specific projects. Furthermore, discussions will be initiated to explore how research can approach scientific questions with novel methods.

The **strategic working groups** should stimulate an effective transfer of knowledge and communication between stem cell research and adjacent fields of research and support a discourse with stakeholders, patient groups and the general public.

The measures below arose in the group discussions of the working group sessions during the 1<sup>st</sup> Annual Conference of the GSCN:

- Development of the website's interactive facilities, construction of a communication platform
- Participation of the GSCN in meetings and conferences of other associations (e.g. German Consortium of Translational Cancer Research (DKTK), DGTI) and organizations (e.g. ISSCR).
- Development of a mentoring and internship program
- Organization of specific workshops during the next GSCN annual conference
- An additional working group on 'Hematopoietic stem cells'

Funding is available to working groups for the organization of scientific meetings (retreats), GSCN satellite symposiums for conferences, workshops (including partners from companies), additional activities during the annual conference (particularly to provide advice and continuing professional development measures for young scientists), expert meetings (pharmaceuticals, regulatory processes) and the creation of information materials including editorial activities (white papers, outreach programs, media). The central office manages the distribution of funds under defined criteria, with the help of a selection panel when appropriate.

### Finances

The GSCN is a nonprofit association financed through membership fees and funds from the Federal Ministry of Education and Research (BMBF). According to Section 4 of the statutes and rules of the GSCN, the level of member fees are regulated in the membership fee provisions passed at the Members' Meeting. The fees are shown on the application form for membership of the GSCN.

The financial year corresponds to the calendar year. Membership fees are due at the beginning of the financial year. It is the Executive Board's responsibility to prepare the association's annual statement of accounts and to submit it to the Members' Meeting. The financial situation is presented in detail at the Members' Meetings.

From March 2013 to March 2014, the GSCN was supported by funding amounting to €312,500 granted to the Max Delbrück Center for Molecular Medicine (MDC) by the Federal Ministry of Education and Research (BMBF) via the project management VDI Technologiezentrum.

