

## Digital Embryology Consortium

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Dr. Mark Hill Australia	Prof. Christoph Viebahn Germany	Dr. Peter Giere Germany	Prof. Beate Brand-Saberi Germany	Prof. Shigehito Yamada Japan
 Complutense University of Madrid Department of Anatomy and Embryology	 University Autònoma de Barcelona Morphological Science Department	 Newcastle University Institute of Genetic Medicine	 University of British Columbia Faculty of Dentistry	 National Museum of Health and Medicine Human Developmental Anatomy Center
Prof. José F. Rodríguez-Vázquez Spain	Prof. Rosa Mirapeix Spain	Prof. Susan Lindsay United Kingdom	Prof. Virginia Diewert Canada	Ms Elizabeth Lockett USA

**“Protect, Preserve and Share”**

### 2016 Fall Newsletter

Just a quick summary newsletter and update of the Digital Embryology Consortium (DEC) progress through 2015 - 2016.

In April 2015, we opened the consortium in Göttingen at a special symposium attended by European members, Zeiss and Göttingen staff. Through 2015 into 2016, scanning of the first collection (Blechshmidt Collection) was carried out. The collection oversized slides were easily accommodated by the specially manufactured carriers. We did have some down time, with computer and equipment failures, but these were quickly rectified by Zeiss support. MY Special thanks to Hannes Sydow who was involved with the whole scanning process.



Prof. Christoph Viebahn

The embryo collection slide images are now **protected** and **preserved** as uncompressed CZI format files and archived on more than 30 HDD. These images are now also being converted to the JPGXR format for external backup and will be made available and shared to all on the DEC image server in early 2017.

<https://human-embryology.org>



Göttingen Collection HDDs.

In November 2015, I was invited to the Kyoto 40th Commemoration Symposium where the DEC was also opened and presented at this meeting. Prof. Shigehito Yamada has also kindly agreed to be the deputy convenor for DEC. The DEC also was able to share some of the digitised collection images with the Kyoto group. This was also an occasion to demonstrate the new Kyoto Collection eBook and the meeting proceedings will also appear later in Anatomical Record.



Prof. Kohei Shiota, Mark Hill, Shigehito Yamada and Mineo Yasuda.

In September 2016, the Göttingen collection scanning was completed and the scanner was displayed at the Annual Meeting of the Anatomische Gesellschaft.

In October 2016, the scanner and equipment were then packed into transport cases and shipped to the next collection to be scanned, the Hinrichsen Collection. Prof. Beate Brand-Saberi, Ruhr-University Bochum, had earlier prepared and catalogued the collection, as well as located historic collection documentation. Space was also made available within the department to accommodate the scanner alongside the collection. There is also now an opportunity for some collaborative financial support for scanning this collection. Please let me know of any other grant opportunities.



Prof. Beate Brand-Saberi and Hinrichsen Collection.



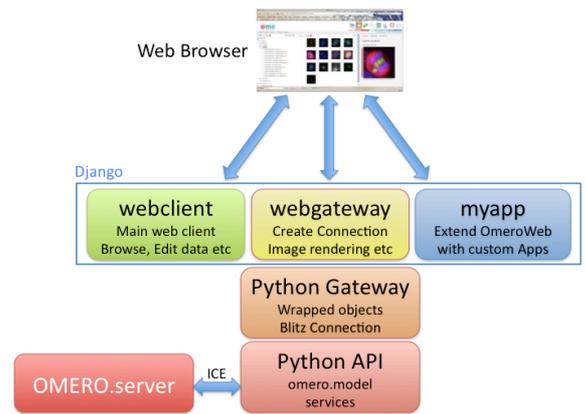
Hinrichsen Collection and Axioskan.

In October 2016, I also visited Prof Rosa Mirapiex in Barcelona (Spain) at the Domenech-Mateu Collection, Universitat Autònoma de Barcelona. Prof Mirapiex has carried out a huge effort in the reorganization and cataloguing of the collection. As part of the process she has also identified the best material from the collection to be included in the DEC. Scanning of this collection will commence in 2017.



Prof Rosa Mirapiex and Domenech-Mateu Collection

In 2016, the DEC OMERO image server has now been successfully test running through the entire year. We were able to resolve some of the technical issues that arose when it was first set up in March. I encourage all users to log-in and view the test stage 22 images located in the Sydney folder. I appreciate any feedback on issues you have remotely accessing these images before we commence uploading the collection images. I also ask that you provide me the names of any additional users that you would like to have initial DEC access, all must agree to the [DEC terms and conditions](#).



Exciting news for DEC **sharing** is that Jason Swedlow, the OMERO server developer, has with Zeiss support now been working on the server application to allow Bioformat support of the JPGXR image format. This new support should be available later this year. This has huge space-saving implications for the DEC server environment. I remind all consortium contributors that you are free to save your own collection image archive dataset in any format that you choose.



**Prof. Jason Swedlow,**  
University of Dundee

This includes uncompressed image formats, though the DEC submitted HDDs and the online database will currently only maintain the JPGXR image format.

I have now also just returned from visiting Prof. Wouter H. Lamers at Maastricht University, Netherlands. His lab has for some time been working on 3D human embryo reconstructions and modelling, based upon embryo histology sections. His group will now be contributing their already scanned embryo histology slides. Prof. Lamers acting on behalf of the DEC has also been organising the contribution of the University of Amsterdam embryo collection.



**Prof. Lamers,** Maastricht  
University

I also welcome new to the DEC in 2016:

**Prof. Susan Lindsay**, Institute of Genetic Medicine, Newcastle University, UK with the Human Developmental Biology Resource (HDBR) HuDSeN Collection. This is an active collection providing resources to researchers and many collection embryos have already been digitized.



**Prof. Susan Lindsay,**  
Newcastle University

**Prof Jose Sanudo**, Universidad Complutense de Madrid, Spain, with the Javier Puerta's Collection, we now have two prestigious embryo collections from this University.

With best wishes for the new year!

Mark Hill