

Puplications with Simi BioCell

(not complete – 06/08)

Titus Kaletta, Heinke Schnabel & Ralf Schnabel (1997)
 Binary specification of the embryonic lineage in *Caenorhabditis elegans*
Nature, 390, 294-298

Karin Brunschwig, Claudia Wittmann, Ralf Schnabel, Thomas Bürglin, Heinz Tobler
 and Fritz Müller (1999)
 Anterior organization of the *C. elegans* embryo by the *labial*-like *Hox* gene *ceh-13*
Development, 126, 1537-1546

Ralf Schnabel (Zur Verfügung gestellt)
 Biology in pictures: a question of fate (1999)
 Curr. Biol. 12, R543.

Ralf Schnabel (1999)
 Microscopy
 in *C. elegans*; A Practical Approach (I.A. Hope, ed.) 119-141

Hoeppner DJ, Hengartner MO, Schnabel R (2001)
 Engulfment genes cooperate with *ced-3* to promote cell death in *Caenorhabditis*
elegans.
Nature 412, 202-206

Urbach R, Schnabel R and Technau GM (2003)
 The pattern of neuroblast formation, mitotic domains and proneural gene expression
 during early brain development in *Drosophila*.
Development, 130, 3589-3606

Karabinos A, Büssing, I, Schulz E, Wan, J, Weber K and Schnabel R. (2003)
 Functional analysis of the single calmodulin gene in the nematode *C. elegans* by
 RNA interference and 4-D microscopy
European. J. Cell Biology, 82, 557-563 (82 citations)

Jason M. Kinchen Juan Cabello, Doris Klingele, Richard Feichtinger, Heinke
 Schnabel, Ralf Schnabel and Michael O. Hengartner (2005)
 Two pathways converge at CED-10 to mediate actin rearrangement and corpse
 removal in *C. elegans*
Nature, 434, 93-99

Andreas Hejnol & Ralf Schnabel (2005)
 The embryo of the eutardigrade *Thulinia stephaniae* has an indeterminate
 development and the potential to regulate early blastomere ablations.

Development, 132, 1349-1361

Ralf Schnabel, Marcus Bischoff, Arend Hintze, Anja-Kristina Schulz, Hans Meinhardt and Harald Hutter (2006)

Fate dependent global cell sorting in the *C. elegans* embryo defines a new mechanism for pattern formation.

Developmental Biology, 294, 418-431

Marcus Bischoff and Ralf Schnabel (2006)

Global cell sorting is mediated by local cell-cell interactions in the *C. elegans* embryo.

Developmental Biology, 294, 432-444

Andreas Hejnl, Ralf Schnabel, Gerhard Scholtz (2006)

A 4D-microscopic analysis of the germ band in the isopod crustacean *Porcellio scaber* (Malacostraca, Peracarida)—developmental and phylogenetic implications.

Development Genes and Evolution, 216, 755-767

Marcus Bischoff and Ralf Schnabel (2006)

A Posterior Centre Establishes and Maintains Polarity of the *Caenorhabditis elegans* Embryo by a Wnt-dependent Relay Mechanism.

PLoS Biology, 4:e396.

Rebecca Hunt-Newbury, Ryan Viveiros, Robert Johnsen, Allan Mah, Dina Anastas, Lily Fang, Erin Halfnight, David Lee, John Lin, Adam Lorch, Sheldon McKay, H. Mark Okada, Jie Pan, Anja K. Schulz, Domena Tu, Kim Wong, Z. Zhao, Andrey Alexeyenko, Thomas Burglin, Eric Sonnhammer, Ralf Schnabel, Steven J. Jones, Marco A. Marra, David L. Baillie, Donald G. Moerman (2007)

High-Throughput In Vivo Analysis of Gene Expression in *Caenorhabditis elegans*

PLoS Biology, 5: e237

Paramita Ray, Ralf Schnabel and Peter G. Okkema (2008)

Behavioral and synaptic defects in *C. elegans* lacking the NK-2 homeobox gene *ceh-28*

Developmental Neurobiology, 68, 421- 433

Ryan B. Smit, Ralf Schnabel, Jeb Gaudet (2008)

The HLH-6 transcription factor regulates *C. elegans* pharyngeal gland development and function.

PLoS Genetics, 10:e1000222

[Embryonic lineage evolution in nematodes - \(4 \) »](#)

G Borgonie, K Jacobsen, A Coomans - Nematology, 2000 - Springer

... afterwards. Using the **SIMI Biocell** software (**SIMI Biocell**, Unterschleissheim, 85705, Germany) especially developed for this work, cells ...

[Zitiert durch: 15](#) - -

[Buccal capsule development as a consideration for phylogenetic analysis of Rhabditida \(Nemata\) - \(3 \) »](#)

C Dolinski, G Borgonie, R Schnabel, JG Baldwin - Development Genes and Evolution, 1998 - Springer

... were recorded fully from five-cell to one-and-a-half fold stage and the buccal capsule cells were lineage and analyzed by the program **Simi Biocell**, produced ...

[Zitiert durch: 9](#) - -

[Detection of nuclei in 4D Nomarski DIC microscope images of early *Caenorhabditis elegans* embryos ... - \(5 \) »](#)

S Hamahashi, S Onami, H Kitano - feedback, 2005 - biomedcentral.com
 ... 4D DIC microscope system (hereafter called a set of 4D DIC microscope images), two computer-assisted systems have been developed, namely **SIMI BioCell** [12] and ...
[Zitiert durch: 4](#) - - [Im Cache](#) -

[ALES: cell lineage analysis and mapping of developmental events - \(16 \) »](#)

V Braun, RBR Azevedo, M Gumbel, PM Agapow, AM ... - Bioinformatics, 2003 - Oxford Univ Press
 ... SYSTEMS AND METHODS Data At startup ALES reads a lineage data file (Table 1) or a **Simi BioCell** database (Schnabel et al., 1997). ...
[Zitiert durch: 21](#) - -

[Automated cell lineage tracing in *Caenorhabditis elegans* - \(7 \) »](#)

Z Bao, JI Murray, T Boyle, SL Ooi, MJ Sandel, RH ... - Proceedings of the National Academy of Sciences, 2006 - National Acad Sciences
 ... Various computer programs have been developed to facilitate the analysis; the most widely used is the proprietary **SIMI BIOCELL** (19). ...
[Zitiert durch: 17](#) - -

) [Analyse, Vergleich, und Simulation der embryonalen Zellstammlinien verschiedener Nematoden - \(3 \) »](#)

V Braun - 2003 - dkfz.de
 ... 62 5.5.2. **SIMI BioCell** Format 64 ...
[Zitiert durch: 3](#) - - -

[Embryonic cell lineage of the marine nematode *Pellioditis marina* - \(10 \) »](#)

W Houthoofd, K Jacobsen, C Mertens, S Vangestel, A ... - Developmental Biology, 2003 - Elsevier
 ... The lineage and 3D displays of each recording were reconstructed by using the **Simi Biocell** software, equipped with an automatic collision manager (Simi Gmbh, D ...
[Zitiert durch: 13](#) - -

[The forkhead gene family of *Caenorhabditis elegans* - \(5 \) »](#)

IA Hope, A Mounsey, P Bauer, S Aslam - Gene, 2003 - Elsevier
 ... Determination of the embryonic expression pattern for the C29F7.5::gfp fusion involved analysis of 4D recordings using the **SIMI Biocell** database (SIMI GmbH ...
[Zitiert durch: 16](#) - -

[Different roads to form the same gut in nematodes - \(4 \) »](#)

W Houthoofd, M Willems, S Vangestel, C Mertens, W ... - Evolution & Development, 2006 - Blackwell Synergy
 ... (2003). The recordings are analyzed with the software program **Simi Biocell** (Simi GmbH, D-85705 Unterschleissheim, Germany) (Schnabel et al. 1997). ...
[Zitiert durch: 1](#) - -

[Assessing Normal Embryogenesis in *Caenorhabditis elegans* Using a 4D Microscope: Variability of ... - \(5 \) »](#)

R Schnabel, H Hutter, D Moerman, H Schnabel - Developmental Biology, 1997 - Elsevier
 ... Our FIG. 1. The Biocell program. The figure shows several features of the analysis software **SIMI Biocell**. ... called **Simi Biocell** and is available from Simi Gmbh. ...
[Zitiert durch: 93](#) - -

[A Posterior Centre Establishes and Maintains Polarity of the *Caenorhabditis elegans* Embryo by a Wnt- ... - \(6 \) »](#)

M Bischoff, R Schnabel - PLoS Biol, 2006 - biology.plosjournals.org
 ... column shows the positions of the nuclei at the end of the eighth generation of

cells (64 AB descendants) using the 3-D representation feature of **SIMI Biocell**. ...

[Zitiert durch: 4](#) - -

[The lineaging of fluorescently-labeled Caenorhabditis elegans embryos with StarryNite and AceTree - \(3 \) »](#)

JI Murray, Z Bao, TJ Boyle, RH Waterston - nature.com

... The most widely adopted approach for embryonic lineaging is to use the program **SIMI Biocell** 3 to manually generate a lineage from 4D Differential Interference ...

-

[The embryonic cell lineage of the nematode Halicephalobus gingivalis \(Nematoda: Cephalobina: ... - \(5 \) »](#)

W Houthoofd, G Borgonie - Nematology, 2007 - Springer

... The lineage and 3D displays of each recording were re- constructed using the **Simi Biocell** software equipped with an automatic collision manager (version 3.5 ...

[Zitiert durch: 1](#) - -

[C. elegans knockouts in ubiquinone biosynthesis genes result in different phenotypes during larval ... - \(4 \) »](#)

Á Gavilán, C Asencio, J Cabello, JC Rodríguez- ... - BioFactors, 2005 - IOS Press

... as described [24]. Recorded embryos were analyzed with **SIMI Biocell** software (SIMI GmbH, Germany). 2.2. Gut staining Gut staining ...

-

[Early onset of regionalization in EMS lineage of C. elegans embryo: A quantitative study - \(2 \) »](#)

A Tiraihi, T Tiraihi - BioSystems, 2007 - Elsevier

... The captured images, image level and the related development times of C. elegans were obtained from **SIMI-Biocell** software (Simi Reality Motion Systems GmbH ...

[AceTree: a tool for visual analysis of Caenorhabditis elegans embryogenesis - \(5 \) »](#)

TJ Boyle, Z Bao, JI Murray, CL Araya, RH Waterston - BMC Bioinformatics, 2006 - biomedcentral.com

... The most complete of these is **SIMI Biocell**, which is optimized for manually lineaging of 4D differential-interference-contrast (DIC) image series and has been ...

[Zitiert durch: 1](#) - - [Im Cache](#) -

[Anterior organization of the Caenorhabditis elegans embryo by the labial-like Hox gene ceh-13 - \(3 \) »](#)

K Brunschwig - Development, 1999 - dev.biologists.org

... Using the **SIMI Biocell** software (Schnabel et al., 1997), we marked cell positions at various time points (175, 240 and 330 minutes) in order to visualize and ...

[Zitiert durch: 32](#) - -

) [Supplemental Data](#)

RJ Poole, O Hobert - actx.current-biology.com

... In some cases, 4D time-lapse microscopy in conjunction with the **Simi Biocell** software was used for determination of the identity of particular blastomeres ...

-

[A 4D-microscopic analysis of the germ band in the isopod crustacean Porcellio scaber \(Malacostraca, ... - \(3 \) »](#)

A Hejnal, R Schnabel, G Scholtz - Development Genes and Evolution, 2006 - Springer

... of 1 µm. The stacks of pictures were analysed with the software

SIMI®Biocell (SIMI, Unterschleißheim, Germany). The recorded ...

[Zitiert durch: 1](#) - -

[Global cell sorting in the *C. elegans* embryo defines a new mechanism for pattern formation - \(3 \) »](#)

R Schnabel, M Bischoff, A Hintze, AK Schulz, A ... - Developmental Biology, 2006 - Elsevier
 ... Fig. 1. Cell movements in normal and *glp-1* embryos. The figure shows 3D representations of the positions of the nuclei produced with **SIMI © Biocell**. ...

[Zitiert durch: 6](#) - -

[Global cell sorting is mediated by local cell–cell interactions in the *C. elegans* embryo - \(3 \) »](#)

M Bischoff, R Schnabel - Developmental Biology, 2006 - Elsevier
 ... Embryos were recorded at 25°C. Lineage analysis. The 4D recordings were analyzed using the database **SIMI©Biocell** (Schnabel et al., 1997; <http://www.simi.com>). ...

[Zitiert durch: 4](#) - -

[Differential expression pattern of *coq-8* gene during development in *Caenorhabditis elegans* - \(3 \) »](#)

C Asencio, JC Rodríguez-Aguilera, R Vázquez, H ... - Gene Expression Patterns, 2006 - Elsevier
 ... al., 1997). Recorded embryos were analyzed with **SIMI Biocell** software (SIMI GmbH, Germany). Acknowledgements. Authors acknowledge ...

) [1st Computational Embryology Workshop - \(2 \) »](#)

V Braun, M Gumbel, AM Leroi, HP Meinzer - dkfz.de

Page 1. Proceedings of the 1st Computational Embryology Workshop Sept. 10th – Sept. 12, 2001 German Cancer Research Center, Heidelberg ...

- -

) [Design and implementation of a MovieComponent for extension of ALES based on the existing Cello- ... - \(2 \) »](#)

S Mohadessi - dkfz.de

... lineage without information about cell position and timing of cell division is open, the user will be asked to load a corresponding **Simi BioCell** database (.sbd ...

- -

[pha-4, an HNF-3 homolog, specifies pharyngeal organ identity in *Caenorhabditis elegans* - \(15 \) »](#)

MA Horner, S Quintin, ME Domeier, J Kimble, M ... - Genes & Development, 1998 - Cold Spring Harbor Lab
 ... To generate the images in Figure 2, G and H, we noted the positions of all cells every 15-20 min using **SIMI BioCell** software, which can reconstitute the ...

[Zitiert durch: 78](#) - -

) [Structure of Development or Development and Topology of Biological Shape exemplified on the early ... - \(9 \) »](#)

G Kiel - 2002 - elegans.uni-kiel.de

... 27 2.5.4 Database of the **SIMI BioCell** browser 29

2.5.5 Data formats of visualization programs

- -

[High-Throughput In Vivo Analysis of Gene Expression in *Caenorhabditis elegans* - \(6 \) »](#)

R Hunt-Newbury, R Viveiros, R Johnsen, A Mah, D ... - PLoS Biol, 2007 - biology.plosjournals.org
 ... Since the cell lineage of *C. elegans* is invariant [10], we could use these recordings in conjunction with **Simi BioCell** software [19] to retrace the cell ...

[Zitiert durch: 3](#) - -

[TBP-like Factor Is Required for Embryonic RNA Polymerase II Transcription in *C. elegans* - \(18 \) »](#)

JC Dantonel, S Quintin, L Lakatos, M Labouesse, L ... - Molecular Cell, 2000 - Elsevier

... Time-Lapse Recording. Time-lapse recordings were carried out as described ([20])

and subsequently analyzed using the **SIMI BioCell** software ([39]). RT-PCR. ...
[Zitiert durch: 76](#) - -

[Semaphorin 1a and semaphorin 1b are required for correct epidermal cell positioning and adhesion ... - \(3 \) »](#)

VE Ginzburg, PJ Roy, JG Culotti - Development, 2002 - dev.biologists.org

... These cells were identified using **SIMI BioCell** CD ROM TM (Schnabel et al., 1997).

View larger version (56K): [in this window] [in a new window], Fig. ...