

2013





**This calendar is dedicated to
the rat research community.
Thank you for your continued
support and encouragement!**

With appreciation, The RGD Team

KYN/Hok rat held by Dr. Akiko Takizawa. Photo courtesy of Ms. Hsiao-Hui Joyce Chang, National Laboratory Animal Center, National Applied Research Laboratories, Nangang, Taipei, Taiwan.

http://www.narl.org.tw/en/tech/company/?company_id=5

Albino Jcl:Wistar rat in the pocket of Dr. Tomoo Eto, Reproductive Engineering Laboratory, Central Institute for Experimental Animals, Kawasaki-Ku, Kawasaki, Japan. Photo courtesy of Dr. Eto.

<http://www.ciea.or.jp/>



January 2013

Sun	Mon	Tues	Wed	Thur	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

"Rat Romance" – Sketch by Professor Paul Brand,
Program in Physiological Genomics, Department of
Physiology and Pharmacology, University of Toledo
College of Medicine, Toledo, OH, USA.

[http://www.utoledo.edu/med/depts/physpharm/
pgi/index.html](http://www.utoledo.edu/med/depts/physpharm/pgi/index.html)

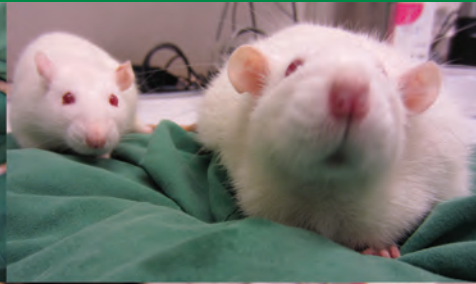


PAUL BRAND

February

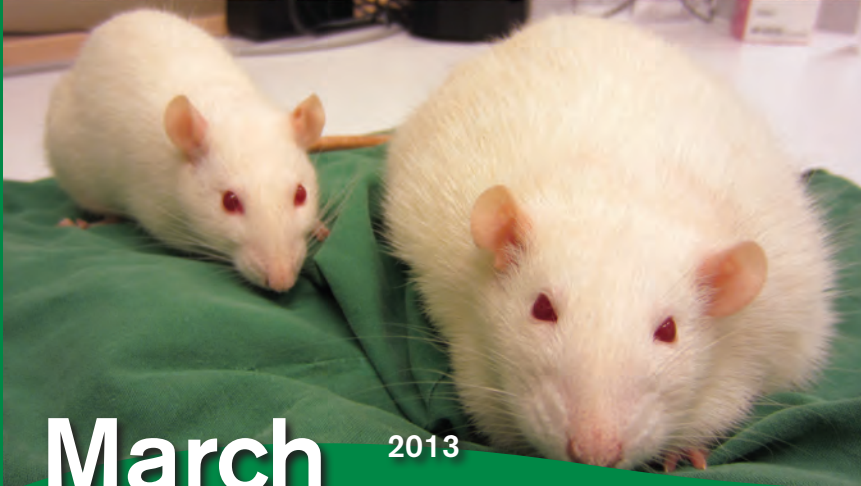
2013

Sun	Mon	Tues	Wed	Thur	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28		



BBDR.LA-(D5Rhw23-D5Rhw20)/ULUND rat (alias: "BBDR.cg-lepr.cp"). Developed by Dr. Lina Åkesson, Dr. Åke Lernmark & Dr. Maria F. Gomez at Lund University, Sweden. Photos by Dr. Lisa M. Berglund & Dr. Lina Åkesson, Lund University, Sweden

<http://www.ludc.med.lu.se/research-units/vascular-excitation-transcription-et-coupling/>



March 2013

Sun	Mon	Tues	Wed	Thur	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24/31	25	26	27	28	29	30




"Sarah" – a Russian blue Siamese with the black eyed mutation. Photo courtesy of Joanne Bella Hodges.

<http://ratguide.com>

April 2013

Sun	Mon	Tues	Wed	Thur	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				



Agouti Kwl: Zucker mother and pup. Photo courtesy of Dr. Masayuki Anzai of the Institute of Advanced Technology, Kinki University, Higashiosaka City, Osaka, Japan.

<http://www.kindai.ac.jp/english/>

May 2013

Sun	Mon	Tues	Wed	Thur	Fri	Sat
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

Mc4r knockout rat. Photo by Pim Toonen.
Submitted by Dr. Edwin Cuppen, Hubrecht
Institute, Utrecht, The Netherlands.

<http://www.hubrecht.eu/index.html>



June 2013

Sun	Mon	Tues	Wed	Thur	Fri	Sat
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23/30	24	25	26	27	28	29

Chimeric rat consisting of rESBLK2i-1 and Wistar Blastocysts. Rat generated by and photo courtesy of Dr. Masumi Hirabayashi, National Institute for Physiological Sciences, Okazaki, Aichi, Japan.

<http://www.nips.ac.jp/eng/>



July 2013

Sun	Mon	Tues	Wed	Thur	Fri	Sat
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			



Wistar transgenic rat produced via pronuclear microinjection. Rat generated by and photo courtesy of Dr. Toshihiro Aoto, PhoenixBio Co., Ltd., Utsunomiya City, Japan.

<http://www.phoenixbio.co.jp/en/index.html>

August 2013

Sun	Mon	Tues	Wed	Thur	Fri	Sat
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

23 day old Lewis rat with (clockwise from top right)
day 5 neonates and E15 and E13.5 Lewis embryos.
Photos courtesy of Dr. Camilo Duran, Sala de
Experimentación Animal, Pontificia Universidad
Javeriana, Bogotá, Colombia

<http://www.javeriana.edu.co/>



September 2013

Sun	Mon	Tues	Wed	Thur	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

"Hallo" - a 3 week old black recessive blazed, heterozygous rex, dumbo pup.
Photo courtesy of Joanne Bella Hodges.

<http://ratguide.com>



October 2013

Sun	Mon	Tues	Wed	Thur	Fri	Sat
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		




Wistar transgenic rats produced via pronuclear microinjection. Rats generated by and photos courtesy of Dr. Toshihiro Aoto, PhoenixBio Co., Ltd., Utsunomiya City, Japan.

<http://www.phoenixbio.co.jp/en/index.html#index.html>

November 2013

Sun	Mon	Tues	Wed	Thur	Fri	Sat
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

A white mouse is shown in profile, looking towards the left. It has several small, black and white spotted pups huddled around its feet. The background is dark with numerous green and red fluorescent spots, representing rat sperm stained with SYBR 14 and Propidium iodide respectively.

Background: rat sperm (SS-Lcatm5Mcwi) stained with SYBR 14 (Green) and Propidium iodide (Red). Foreground: Mother with pups. FHHsorcs1 (ZFN KO) pups generated from cryopreserved sperm via intracytoplasmic sperm injection (ICSI). Recipient female is Wistar. Photos courtesy of Dr. Akiko Takizawa, Human and Molecular Genetics Center, Medical College of Wisconsin, Milwaukee, WI, USA.

<http://www.mcw.edu/HMGC.htm>

December 2013

Sun	Mon	Tues	Wed	Thur	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Please continue to support RGD by visiting our website at <http://rgd.mcw.edu>

Principal Investigator:

Howard Jacob, PhD

Co-Investigators:

Mary Shimoyama, PhD
Mindy Dwinell, PhD
Diane Munzenmaier, PhD
Liz Worthey, PhD

Research Scientists and Curators:

Shirng-Wern Tsaih, PhD
Stan Laulederkind, PhD
Victoria Petri, PhD
Rajni Nigam, MS
Jennifer Smith, MS
Tom Hayman, PhD
Tim Lowry, PhD
Shur-Jen Wang, PhD

Student Interns:

Jasmine Reed
Elizabeth Widder
Mai Kaw Xiong

Bioinformatics Manager:

Jeff DePons

Developers:

Pushkala Jayaraman, MS
Weisong Liu, PhD
Marek Tutaj, MS

Database Administrator:

Stacy Zacher, MS

COVER PHOTOS

Eight week old chimeric rat generated by injecting ES cells from the line F344-Tg.EC4011 (RRRC #654) into DA X SD blastocysts. Rat generated by and photo courtesy of Dr. Elizabeth Bryda, Rat Resource and Research Center, University of Missouri, Columbia, MO, USA.

<http://www.rrrc.us/>

INSET PHOTOS, COUNTER-CLOCKWISE FROM TOP LEFT:

- Three running Wistar transgenic rats. Photo courtesy of Dr. Toshihiro Aoto, PhoenixBio Co., Ltd., Utsunomiya City, Japan.
- Albino Kwl:SD rat pup. Photo courtesy of Dr. Masayuki Anzai of the Institute of Advanced Technology, Kinki University, Higashiosaka City, Osaka, Japan.
- Rat's ear with induced fluorescent color: 4-Hydroxytamoxifen was topically applied to the right ear of a double transgenic SD-Tg(UBC-fRed/GFP)Tg(UBCCreERT2) rat. Rats were generated by Dr. Chi-Kuang Leo Wang, Dr. Si-Tse Jiang, Dr. Hsian-Jean Genie Chin and Ms. Hsiao-Hui Joyce Chang. National Laboratory Animal Center, National Applied Research Laboratories, Nangang, Taipei, Taiwan. <http://www.nlac.org.tw/english/default.asp>
- Rat ES cell injection: FHH-GFP ES cells being injected into a F344*DA blastocyst. Photo courtesy of Dr. Akiko Takizawa, Human and Molecular Genetics Center, Medical College of Wisconsin, Milwaukee, WI, USA.
- "Little Camper", male homozygous Russian Blue dumbo. Photo courtesy of Joanne Bella Hodges.
- Albino Kwl:SD rat, Hooded Kwl:LongEvans rat and Agouti Kwl:Zucker rat. Photo courtesy of Dr. Masayuki Anzai of the Institute of Advanced Technology, Kinki University, Higashiosaka City, Osaka, Japan.
- "Dishwasher", Minka tries to help with the dishes. Photo courtesy of Joanne Bella Hodges.
- SS rat 2-cell embryos. Photo courtesy of Dr. Akiko Takizawa, Human and Molecular Genetics Center, Medical College of Wisconsin, Milwaukee, WI, USA.
- Chimera produced from DA and F344 ES cells. Photo courtesy of Dr. Akiko Takizawa, Human and Molecular Genetics Center, Medical College of Wisconsin, Milwaukee, WI, USA.
- Albino Jcl:Wistar rat. Photo courtesy of Dr. Tomoo Eto, Reproductive Engineering Laboratory, Central Institute for Experimental Animals, Kawasaki-Ku, Kawasaki, Japan.