

RAT GENOME DATABASE

rgd.mcw.edu

2016
2016
2016





"Sam and Frodo", brothers exhibiting seal point Himalayan and Russian blue point Himalayan markings with the imported "Black eye" gene that only modifies C locus dilutions. Photo courtesy of Joanne Bella Hodges, Senior Team Member, The Rat Guide.

<http://ratguide.com>

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

With appreciation, The RGD Team



3-8 week old Kwi:Long Evans (black hooded) and Kwi:Wistar (albino) rats. Photography by Mr. Takao Nakagawa, Kiwa Laboratory Animals Co., Ltd. Wakayama, Japan. Photos submitted by Dr. Masayuki Anzai, Institute of Advanced Technology, Kinki University, Higashiosaka City, Osaka, Japan.

<http://www.kwi-a.co.jp>

<http://www.waka.kindai.ac.jp/tea/sentan/index.html>



January 2016

Sun	Mon	Tues	Wed	Thur	Fri	Sat
					1	2
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24/31	25	26	27	28	29	30



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"Dragon Parade". Original painting in gouache (opaque watercolor) by Drusilla Kehl, The Illustrated Rat. Used with permission of the artist.
<http://www.illustratedrat.macwebsitebuilder.com>

February 2016

Sun	Mon	Tues	Wed	Thur	Fri	Sat
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28	29					

Albino

Brown

Black



Heterogeneous Stock (HS) rats. Photos courtesy of Dr. Jerry B. Richards, Research Institute on Addictions, University at Buffalo (SUNY), Buffalo, NY, USA.

<http://www.buffalo.edu/ria/staff/scientists/jrichards.html>



March 2016

Sun	Mon	Tues	Wed	Thur	Fri	Sat
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27	28	29	30	31		



Crij:CD(SD) rats (RGD: 734476). Photos courtesy of Dr. Toshihiro Aoto, Institute of Immunology Co., Ltd., Utsunomiya City, Japan.

<http://www.tokumen.co.jp/?lang=en>



April 2016

Sun	Mon	Tues	Wed	Thur	Fri	Sat
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Top: 3 week old rat chimeras generated by injecting FHH/EurMcwi ES cells into Cri:SD embryos. Bottom: 10 day old rat chimeras generated by injecting SS-PT2/GFP ES cells into Cri:SD x DA/OlaHsd embryos. Rats generated by and photos courtesy of Dr. Akiko Takizawa, Human and Molecular Genetics Center, Medical College of Wisconsin, Milwaukee, WI, USA.

<http://www.hmgc.mcw.edu/index.htm>



May 2016

Sun	Mon	Tues	Wed	Thur	Fri	Sat
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HBL/Jer Hairless black skin pigmented rat (RGD: 10402395) produced by crossing a BNW/Jer rat (inbred generation 47; RGD: 10402390) with a hairless pink dilute HPE/Jer rat (inbred generation 27; RGD: 10402393). This rat model is used for nutritional, organ, reproductive and melanin studies. Genetic testing at Charles River Laboratories confirmed BNW/Jer to be homozygous for at least 106/107 genome-wide markers spaced at 15-20 cM intervals. Colony maintained and photo courtesy of Jerome Donohoe, Agricultural Omega Solutions LLC, Milwaukee, WI, USA.

<http://www.agriculturalomegasolutions.com/>

June 2016

Sun	Mon	Tues	Wed	Thur	Fri	Sat
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26	27	28	29	30		



"Delilah", a Russian blue variegated with recessive blazing. Photo courtesy of Joanne Bella Hodges, Senior Team Member, The Rat Guide.

<http://ratguide.com>

July 2016

Sun	Mon	Tues	Wed	Thur	Fri	Sat
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24/31	25	26	27	28	29	30

Rat/mouse hybrid. Animals are: Left: C57BL/6NCRSlc mouse, Middle: Mouse-Rat Interspecies chimera. Rat ES Cells (Crij:WI-ES1/Nips; RGD: 10053737) were injected into mouse embryos (F1 of C57BL/6NCRSlc and B6D2F1/Slc), Right: Slc:Wistar rat. Chimera was generated by Dr. Toshihiro Kobayashi, Wellcome Trust /Cancer Research UK Gurdon Institute, University of Cambridge, UK, and Dr. Masumi Hirabayashi, National Institute for Physiological Sciences, Okazaki, Aichi, Japan.

<http://www.gurdon.cam.ac.uk/research/>
<http://www.nips.ac.jp/eng/>



August 2016

Sun	Mon	Tues	Wed	Thur	Fri	Sat
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Superhero!

I'm much maligned in history and maybe rightly so,
But there's so much more to me now that you don't even know.

Instead of only being thought as one who spread the plague,
I'm trying hard help you now, so please hold your disdain.

I'm helping docs and lab techs to find cures for your disease.
I really hate to see you suffer from those maladies.

They're knocking in and out my genes to hopefully find cures,
for heart disease and cancer, or for any other scourge.

So, the next time that you hear my name, don't think "You dirty rat!",
because I'm your "Superhero" working in a research lab!

Hybrid rat WI-Foxn1^{em1Nips}WI-Foxn1^{em2Nips}F1/
Nips (RGD: 10053603). Rats developed
by and photos courtesy of Dr. Teppei Goto
and Dr. Masumi Hirabayashi, Section of
Mammalian Transgenesis, Center for Genetic
Analysis of Behavior, National Institute for
Physiological Sciences, Okazaki Aichi, Japan.

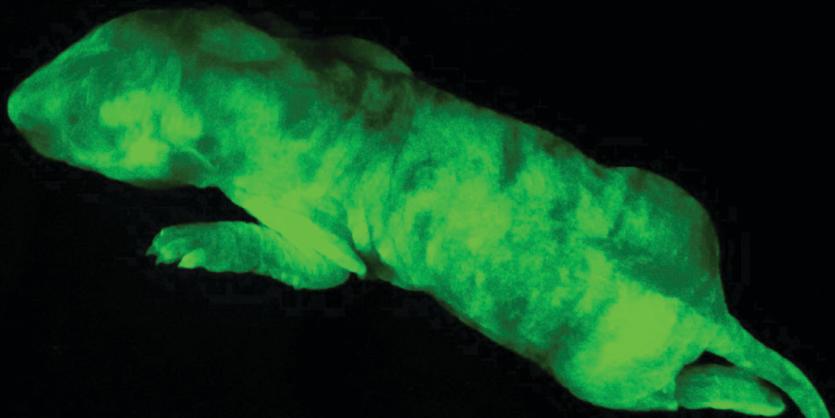
<http://www.nips.ac.jp/mamtg/>

Original poem by Lisa King, Supervisor,
Biomedical Resource Center, Medical
College of Wisconsin, Milwaukee, WI, USA.
Used with permission.

<http://infoscope.mcw.edu/BRC.htm>

September 2016

Sun	Mon	Tues	Wed	Thur	Fri	Sat
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Left top and Right: Chimera rats consisting of SS-TgTn(T2GFP)E3Mcwi-ES4/Mcwi cells (RGD: 10402779) injected into Sprague-Dawley (SD) blastocysts

Left bottom: Pups with GFP transmitted through the germ line from SS-TgTn(T2GFP)E3Mcwi-ES2/Mcwi (RGD: 10402536) and SS-TgTn(T2GFP)E3Mcwi-ES5/Mcwi cells (RGD: 10402537). Photography by Ms. Lynn Lazcares. Photos submitted by Dr. Akiko Takizawa, Human and Molecular Genetics Center, Medical College of Wisconsin, Milwaukee, WI, USA.

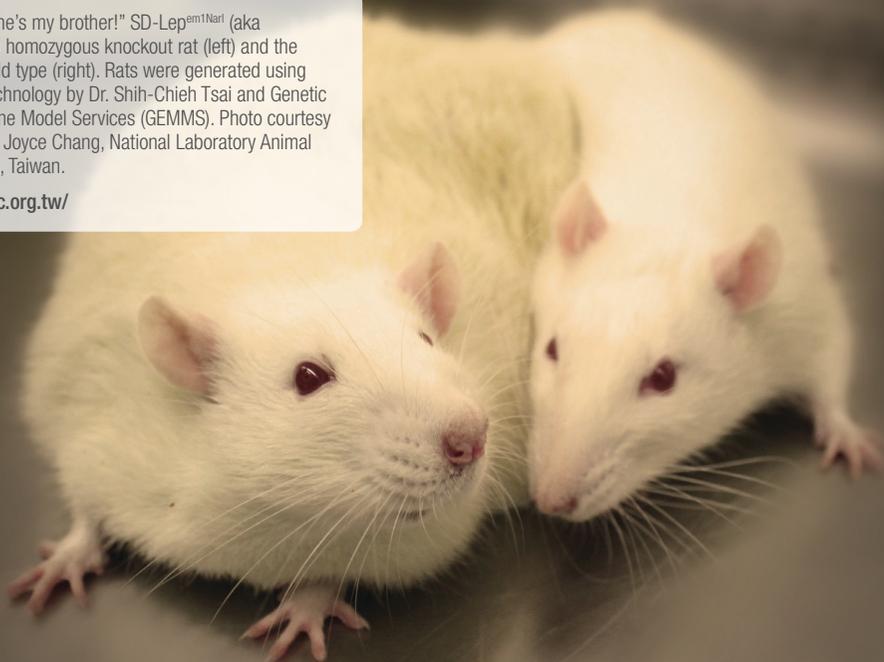
<http://www.hmgc.mcw.edu/index.htm>

October 2016

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"He ain't heavy, he's my brother!" SD-Lep^{em1Narl} (aka SD-Leptin^{15Narl}/Narl) homozygous knockout rat (left) and the littermate-SD Wild type (right). Rats were generated using CRISPR/Cas9 technology by Dr. Shih-Chieh Tsai and Genetic Engineered Murine Model Services (GEMMS). Photo courtesy of Ms. Hsiao-Hui Joyce Chang, National Laboratory Animal Center, NARLabs, Taiwan.

<http://www.nlac.org.tw/>



November 2016

Sun	Mon	Tues	Wed	Thur	Fri	Sat
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Clockwise from top left: "Sleepy: I'm so tired...Zzzz..." Cri:SD rat; "You think I am cute, don't you!?" Jcl:Wistar rat; "Hide-and-peek!" Jcl:Wistar rat; Rat generated by Intra-cytoplasmic sperm injection (ICSI) from a Jcl:Wistar egg and SS sperm. Photos courtesy of Dr. Tomo Etoh, Central Institute for Experimental Animals (CIEA), Kawasaki, Japan.

<http://www.ciea.or.jp/en/rinen.html>



December 2016

Sun	Mon	Tues	Wed	Thur	Fri	Sat
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"Unicycle". Original painting in gouache (opaque watercolor) by Drusilla Kehl, The Illustrated Rat. Used with permission of the artist.



Cover Photos

Top row, left: "J'Pooka", a Russian blue dumbo-eared female. Photo courtesy of Joanne Bella Hodges, Senior Team Member, The Rat Guide.

Top row, right: Crlj:CD(SD) rats. Photo courtesy of Dr. Toshihiro Aoto, Institute of Immunology Co., Ltd., Utsunomiya City, Japan.

Second row, left: "Rose". Original painting in gouache (opaque watercolor) by Drusilla Kehl, The Illustrated Rat. Used with permission of the artist.

Second row, right: Kwl:SD rat with Kwl:Long Evans (black hooded) in the background. Photography by Mr. Takao Nakagawa, Kiwa Laboratory Animals Co., Ltd. Wakayama, Japan. Photo submitted by Dr. Masayuki Anzai of the Institute of Advanced Technology, Kinki University, Higashiosaka City, Osaka, Japan.

Third row, left: Sleeping Crl:SD rat. Photo courtesy of Dr. Tomo Etoh, Central Institute for Experimental Animals (CIEA), Kawasaki, Japan.

Third row, center: Chimera pup generated by injection of Fawn Hooded Hypertensive (FHH) ES cells into a Sprague-Dawley (SD) embryo. Photo courtesy of Dr. Akiko Takizawa, Human and Molecular Genetics Center, Medical College of Wisconsin, Milwaukee, WI, USA.

Third row, right: Heterogeneous Stock (HS) rat. Photo courtesy of Dr. Jerry B. Richards, Research Institute on Addictions, University at Buffalo (SUNY), Buffalo, NY, USA.

Bottom: Rat chimeras produced from rESFH3-P9 cells. Photo courtesy of Dr. Akiko Takizawa, Human and Molecular Genetics Center, Medical College of Wisconsin, Milwaukee, WI, USA.

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rESAC1-P7 rat chimera. Photo courtesy of Dr. Akiko Takizawa, Human and Molecular Genetics Center, Medical College of Wisconsin, Milwaukee, WI, USA.

<http://www.hmgc.mcw.edu/index.htm>

"Vote Rats!" Original painting in gouache (opaque watercolor) by Drusilla Kehl, The Illustrated Rat. Used with permission of the artist.

<http://www.illustratedrat.macwebsitebuilder.com>