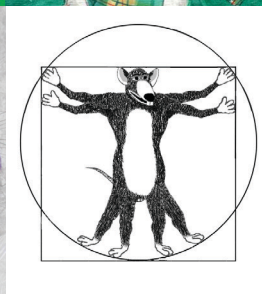
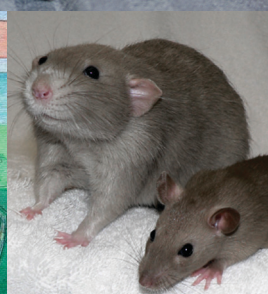
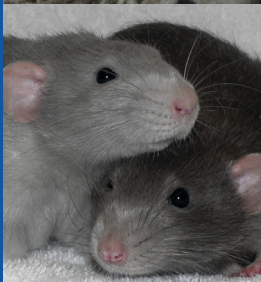
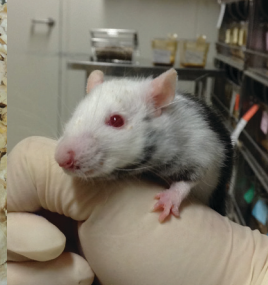




# RAT GENOME DATABASE

[rgd.mcw.edu](http://rgd.mcw.edu)

2017  
2017  
2017





"Rat with Flowers". Original drawing by Dr. Stan Laulederkind, Senior Curator, Rat Genome Database, Medical College of Wisconsin, Milwaukee, WI, USA. Used with permission of the artist.

<http://rgd.mcw.edu>

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

With appreciation, The RGD Team



Four week old albino Kwl:Wistar rat wrestles a dinosaur to the ground. Photography by Mr. Takao Nakagawa, Kiwa Laboratory Animals Co., Ltd., Wakayama, Japan. Photos submitted by Dr. Masayuki Anzai, Institute of Advanced Technology, Kindai University, Higashiosaka City, Osaka, Japan.

<http://www.kwl-a.co.jp> | <http://www.waka.kindai.ac.jp/tea/sentan/index.html>

# January 2017

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				



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

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

# February 2017

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				



Sprague-Dawley (SD) rat obtained from a nonsurgical embryo transfer using a rat NSET device under development at ParaTechs Corporation. Photo courtesy of Ms. Margo Landis and Dr. Barbara Stone, ParaTechs Corp., Lexington, Kentucky, USA.

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

# March 2017

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	



Four week old Agouti Dumbo, black standard ear, and Russian Blue Dumbo pups. Photo courtesy of Joanne Bella Hodges, Senior Team Member, The Rat Guide.

<http://ratguide.com>

# April 2017

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

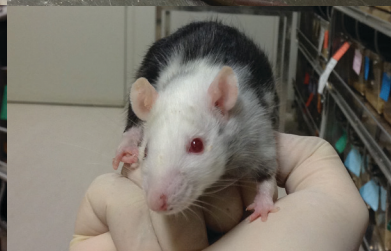
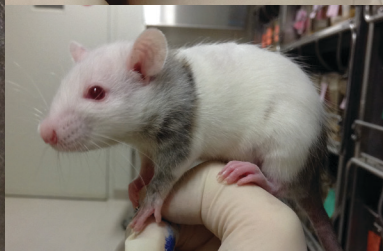
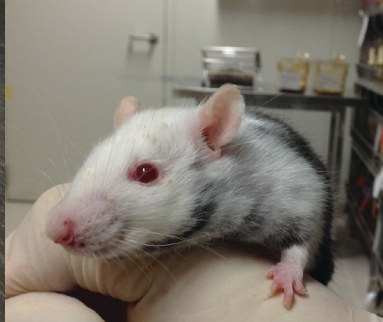


Four week old albino Kwl:Wistar rat and four week old male black-hooded Kwl:Long Evans rat. Photography by Mr. Takao Nakagawa, Kiwa Laboratory Animals Co., Ltd., Wakayama, Japan. Photos submitted by Dr. Masayuki Anzai, Institute of Advanced Technology, Kindai University, Higashiosaka City, Osaka, Japan. Origami by graduate (Rika Azuma) and undergraduate (Orisugi Takuya, Akari Obashi, Yuki Hamada, Chikara Kogiso, Rina Ogasawara and Akari Washizu) students of the School of Biology-Oriented Science and Technology, Kindai University.

<http://www.kwl-a.co.jp> | <http://www.waka.kindai.ac.jp/tea/sentan/index.html>

# May 2017

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



Rat-mouse interspecies chimeras. Green mouse ES cells were injected into rat Crlj:WI embryos (RGD: 2312504). Chimeras 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/>

# June 2017

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	





Four week old pups, and seventeen week old mother with one week old pups. All rats are Slc:Wistar (Slc:W, RGD: 2314928). Photo courtesy of Dr. Yusuke Osaki, Division of Integrative Renal Replacement Therapy, Graduate School of Medicine, Tohoku University, Aobaku, Sendai, Japan.

<http://www.med.tohoku.ac.jp/> | <http://www.med.tohoku.ac.jp/english/index.html>

# July 2017

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

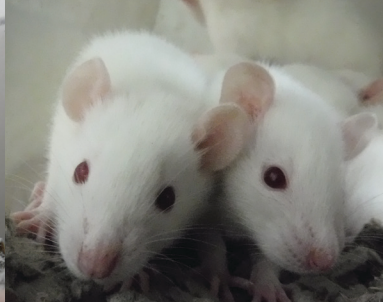


"Luau". Original painting in gouache (opaque watercolor) by Drusilla Kehl, The Illustrated Rat. Used with permission of the artist.

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

# August 2017

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		



Crj:WI rats (RGD: 2312504). Photography by Ms. Miki Nakajima. Photo courtesy of Dr. Toshihiro Aoto, Institute of Immunology Co., Ltd., Utsunomiya City, Japan.

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

# September 2017

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



"Joell", a Russian Blue Dumbo, peeks out from a haunted house. Photo courtesy of Joanne Bella Hodges, Senior Team Member, The Rat Guide.

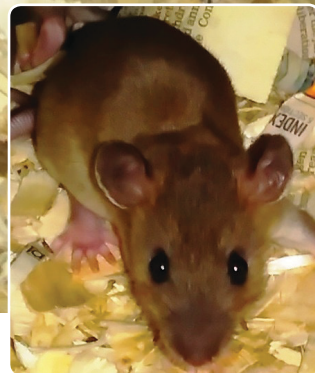
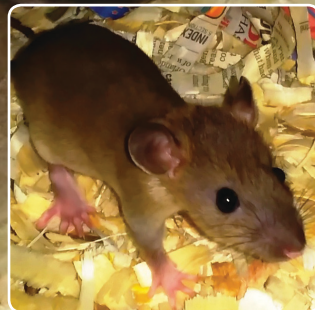
<http://ratguide.com>

# October 2017

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				

BNW/Jer rat (inbred generation 54; RGD: 10402390). This rat model is used for nutritional, organ, reproductive and skin 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. Colonies maintained and photos courtesy of Jerome Donohoe, Agricultural Omega Solutions LLC, Milwaukee, WI, USA.

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



# November 2017

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		



Clockwise from top left: #1: Chimera pup generated by injection of SS ES cells into LE x DA embryos. #2, 4 and 6: Wild type and founder rats for ACI.FHH- (*D14Arb1-D14Rat70*)/(*D1Mit18-D1Rat90*)/(*D3Got102-D3Rat7*)/*Mcwi-Rab38<sup>tm1Mcwi</sup>*, a Rab38 KO on a triple congenic background. #3 and 7: Chimera pup generated by injection of Fawn Hooded Hypertensive (FHH) ES cells into SD embryos. #5: Chimera pup generated by injection of ACI ES cells into SD embryos. Rats generated by and photos courtesy of Dr. Akiko Takizawa, Human and Molecular Genetics Center, Medical College of Wisconsin, Milwaukee, WI, USA.

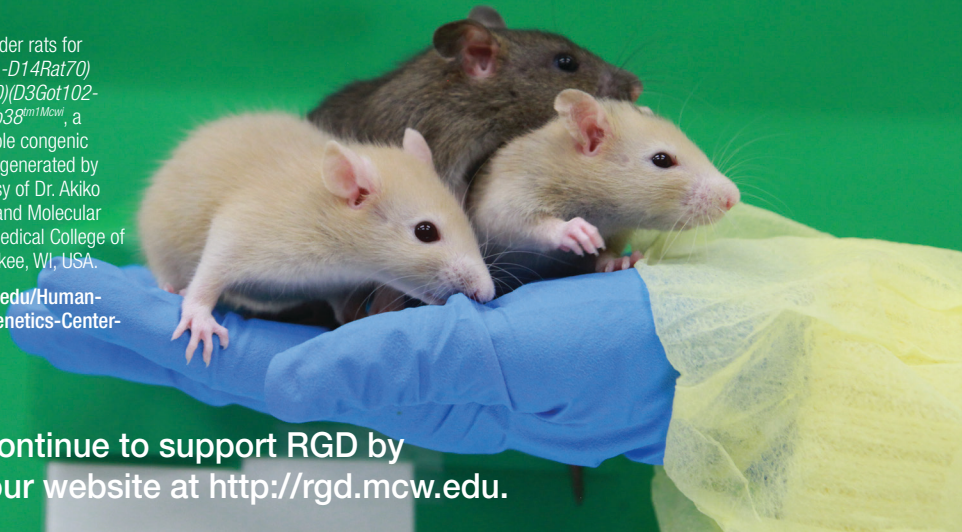
<http://www.mcw.edu/Human-and-Molecular-Genetics-Center-HMGC.htm>

# December 2017

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

Wild type and founder rats for  
ACI.FHH-(D14Arb1-D14Rat70)  
(D1Mit18-D1Rat90)(D3Got102-  
D3Rat7)/Mcwi-Rab38<sup>gmi1Mcwi</sup>, a  
Rab38 KO on a triple congenic  
background. Rats generated by  
and photos courtesy of Dr. Akiko  
Takizawa, Human and Molecular  
Genetics Center, Medical College of  
Wisconsin, Milwaukee, WI, USA.

[http://www.mcw.edu/Human-  
and-Molecular-Genetics-Center-  
HMGC.htm](http://www.mcw.edu/Human-and-Molecular-Genetics-Center-HMGC.htm)



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## Cover Photos

### Row 1, left to right:

Crlj:Wl rats (RGD: 2312504). Photography by Ms. Miki Nakajima. Photo courtesy of Dr. Toshihiro Aoto, Institute of Immunology Co., Ltd., Utsunomiya City, Japan.

Four week old Slc:Wistar (Slc:W, RGD: 2314928) pup. Photo courtesy of Dr. Yusuke Osaki, Division of Integrative Renal Replacement Therapy, Graduate School of Medicine, Tohoku University, Aobaku, Sendai, Japan.

Rat-mouse interspecies chimera. Green mouse ES cells were injected into rat Crlj:Wl embryos (RGD: 2312504). Chimera developed by and photo courtesy of Dr. Tepei Goto and Dr. Masumi Hirabayashi, Section of Mammalian Transgenesis, Center for Genetic Analysis of Behavior, National Institute for Physiological Sciences, Okazaki Aichi, Japan.

### Row 2, left to right:

"Justin" and "Jeremy", adult Russian Silver and Russian Blue Dumbo siblings. Photo courtesy of Joanne Bella Hodges, Senior Team Member, The Rat Guide.

Four week old male Kwl:Wistar rat. Photography by Mr. Takao Nakagawa, Kiwa Laboratory Animals Co., Ltd., Wakayama, Japan. Photo submitted by Dr. Masayuki Anzai of the Institute of Advanced Technology, Kindai University, Higashiosaka City, Osaka, Japan. Origami by students of the School of Biology-Oriented Science and Technology, Kindai University.

### Row 3, left to right:

Chimera pup generated by injection of ACI ES cells into SD embryos. Chimera developed by and photo courtesy of Dr. Akiko Takizawa, Human and Molecular Genetics Center, Medical College of Wisconsin, Milwaukee, WI, USA.

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

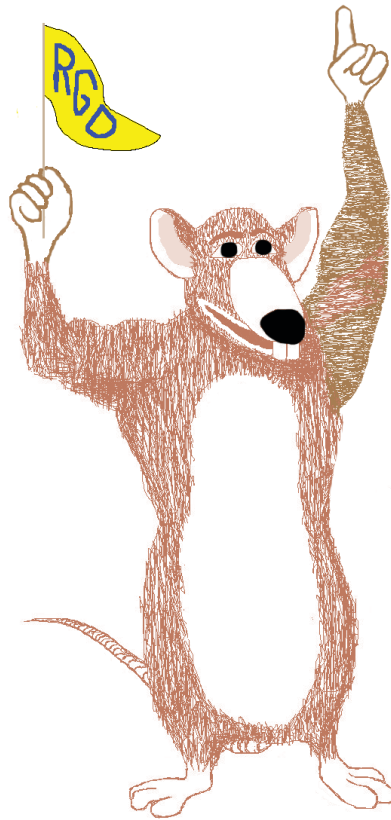
"Jace", an adult Russian Blue Burmese Dumbo, and "Bardoch", a six week old Sable Burmese standard ear rat. Photo courtesy of Joanne Bella Hodges, Senior Team Member, The Rat Guide.

### Row 4, left to right:

"Jinga", a Russian Blue Dumbo rat. Photo courtesy of Joanne Bella Hodges, Senior Team Member, The Rat Guide.

"Vitruvian Rat". Original drawing by Dr. Stan Laulederkind, Senior Curator, Rat Genome Database, Medical College of Wisconsin, Milwaukee, WI, USA. Used with permission of the artist.

Three week old Russian Blue Dumbo. Photo courtesy of Joanne Bella Hodges, Senior Team Member, The Rat Guide.



"RGD Fan Rat". Original drawing by Dr. Stan Laulederkind, Senior Curator, Rat Genome Database, Medical College of Wisconsin, Milwaukee, WI, USA. Used with permission of the artist.

<http://rgd.mcw.edu>