

Original Article

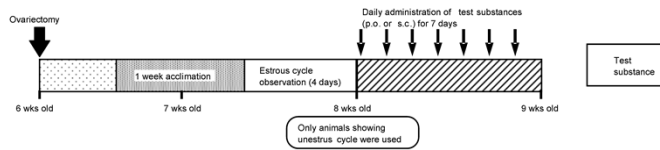
Ovariectomized mouse uterotrophic assay of 36 chemicals

Ryo Ohta¹, Atsuya Takagi², Hideo Ohmukai¹, Hideki Marumo¹, Atsushi Ono²,
Yuko Matsushima², Tohru Inoue², Hiroshi Ono¹ and Jun Kanno²

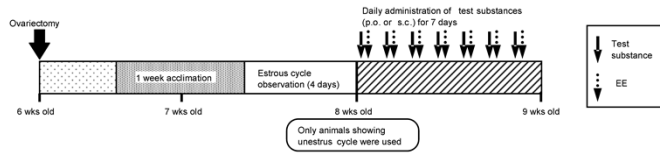
¹Hatano Research Institute, Food and Drug Safety Center, 729-5 Ochiai, Hadano, Kanagawa 257-8523, Japan
²Division of cellular and molecular toxicology, Biological Safety Research Center,
National Institute of Health Sciences, 1-18-1 Kamiyoga, Setagaya-ku, Tokyo 158-8501, Japan

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A. Agonistic activity



B. Antagonistic activity



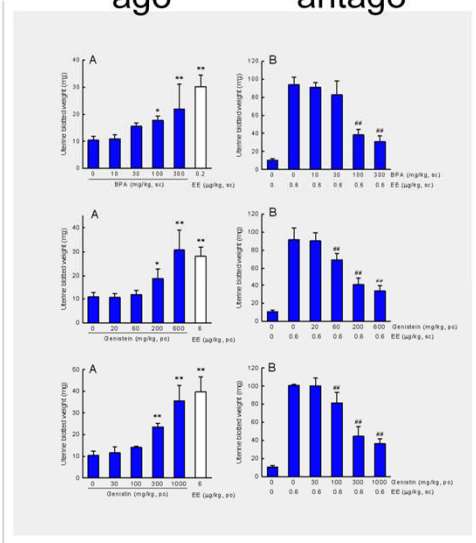
Supplement Table 1. Summary of available in silico and in vitro data

No.	Chemical	QSAR (logRBA)	ER α Reporter Assay			Biocore EC ₅₀ (M)
			Threshold (pM)	PC ₅₀ (pM)	IC ₅₀ (pM)	
ref	EE	0.8666		6x10 ⁷	/	2.29x10 ⁴
a	BPA	-0.2611	1.19x10 ⁷	8.2x10 ⁷	/	1.44x10 ⁷
b	Genistein	-0.2356	2.95x10 ⁹	1.44x10 ⁷	/	7.73x10 ⁷
c	Genetin	0.2400	/	/	/	/
d	Daidzein	-0.1811	1.15x10 ⁸	2.68x10 ⁷	/	/
1	BHPMBA	-0.2049	7.69x10 ⁹	1.37x10 ⁶	/	/
2	THBP	-0.3148	1.06x10 ⁷	3.28x10 ⁷	/	/
3	DHBP	-0.5034	1.61x10 ⁷	2.41x10 ⁶	/	/
4	Tinacicol	-1.1532	4.28x10 ⁹	/	/	/
5	NP	-0.1112	2.11x10 ⁶	/	/	/
6	PDO	/	/	/	/	/
7	DOB	-0.7324	2.23x10 ⁷	7.62x10 ⁶	/	/
8	ANB	0.4941	4.9x10 ¹⁰	2.43x10 ⁷	/	/
9	BHB	-1.1450	/	/	/	/
10	Res	-1.3300	7.4x10 ¹⁰	/	/	/
11	B[a]P	-0.6110	/	/	3.29x10 ⁶	/
12	B[a]A	-0.9791	/	/	/	/
13	DB[a]A	-0.2124	/	/	/	/
14	BTPP	-0.1261	1.04x10 ⁶	/	/	/
15	HPPM	-0.0070	/	/	/	/
16	MT	-1.8704	/	/	6.17x10 ⁶	/
17	6-gin	-1.1246	/	/	/	/
18	Col	0.5497	8.55x10 ⁸	/	/	/
19	MGB	0.0560	7.59x10 ⁸	/	1.07x10 ⁶	/
20	FBZ	-1.1315	3x10 ¹⁷	2.88x10 ¹⁰	/	/
21	LA	-3.6900	/	/	/	5.07x10 ⁷
22	HBB	-0.9580	2.07x10 ⁸	1.51x10 ⁶	/	/
23	TZV	0.9687	/	/	/	/
24	Pra	/	/	/	/	/
25	PHS	-0.7431	/	/	/	/
26	NDGA	0.9212	/	/	/	/
27	CP	0.2080	/	/	/	/
28	DNB	-2.5930	/	/	/	/
29	PO	/	/	/	/	1.35x10 ⁶
30	TBBPA	-1.3012	/	/	/	/
31	HMB	-0.8367	3.55x10 ⁷	5.82x10 ⁶	/	/
32	EP	-1.5150	/	/	/	1.32x10 ³
33	PHB	-1.3746	/	/	/	/
34	K	-0.5731	/	/	/	5.34x10 ⁶
35	BTC	-1.4694	1.01x10 ⁸	1.05x10 ⁶	/	/
36	PP	-0.3987	1.68x10 ⁶	/	/	/

平成27年度化学物質の内分泌かく乱作用に関する公開セミナー (EXTEND2010) 8/20/2015

Pattern 1

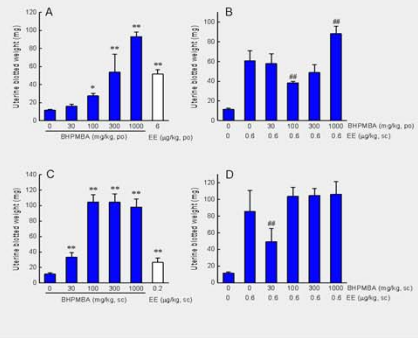
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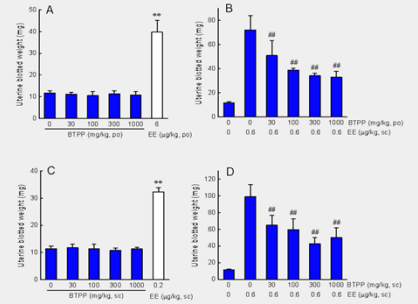
J Tox Sci 37:879-889, 2012

平成27年度化学物質の内分泌かく乱作用に

Pattern 2



Pattern 3



Percellome 法開発 (2001~)

Jun Kanno, MD, PhD
Katsuhide Igarashi, PhD
Ken-ichi Aisaki, MD, PhD
Atsushi Ono, PhD
Tomoko Ando, Ms
Noriko Moriyama, Ms
Yuko Kondo, Ms
Yuko Nakamura, Ms
Maki Abe, Ms



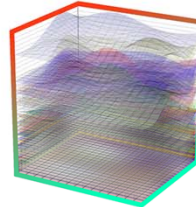
Percellome Projects (2003~)

国立衛研・毒性部内

Jun Kanno, MD, PhD
Ken-ichi Aisaki, MD, PhD
Katsuhide Igarashi, PhD
Noriyuki Nakatsu, PhD
Yukio Kodama, DVM
Tomoko Ando, Ms
Noriko Moriyama, Ms
Yuko Kondo, Ms
Yuko Nakamura, Ms
Maki Abe, Ms
Kenta Yoshiki, Mr
Nae Matsuda, DVM
Chiyuri Aoyagi, Ms
Koichi Morita, Mr
Ayako Imai, Ms
Shinobu Watanabe, Ms
Masaki Tsuji, Mr
Yusuke Furukawa, Mr
Maki Otsuka, Ms
Hisako Aihara, Ms
Minobu Hojo, Ms
Rie Katagiri, Ms
Kiyoshi Sekita, DVM
Yukio Ogawa, DVM (Inhalation)
Satoshi Kitajima DVM, PhD (Fetus)
Kentaro Tanemura DVM, PhD
Atsuya Takagi, DVM, PhD
Yuhji Taquahashi, DVM, PhD

国立衛研/基盤研 TG Project 立ち上げグループ (~summer 2002) (with 17 Pharm)

Akihiko Hirose	Risk Assess/ BSRC/ NIHS
Takayoshi Suzuki	Mutagen/ BSRC/ NIHS
Makoto Shibutani	Path/ BSRC/ NIHS
Katsuhide Igarashi	Tox/BSRC/NIHS
Atsushi Ono	Tox/BSRC/NIHS
Ken-ichi Aisaki	Tox/BSRC/NIHS
Jun Kanno	Tox/BSRC/NIHS



Systems Biology

Dr. Hiroaki Kitano, SBI
Dr. Natalia Polouliakh, SBI
Dr. Samik Ghosh, SBI

Millefeuille Softwares

Ken-ichi Aisaki, MD, PhD

IT collaboration

NTT COMWARE,
NTT Data
with Teradata, NCR
(Shinya Matsumoto,
Bun-ichi Tajima)

Grants

Ministry of Health, Labor, and Welfare
(MHLW) Grant-in-Aid, & others

平成

←(EXTEND2010)5820/jk

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ということで、我々、パーセロームの仕事もエンドクリンの仕事もほぼ同じメンバーでやっておりますが、最近の情動認知に関しては、比較的最近、東北大に移られた種村健太郎先生とのコラボレーションが中心になっています。あと、部内では古川 雄祐さんが動物実験のキーになるところをやっております。

終
End



From 12th~13th century Choju Jinbutsu Giga
(caricatures of frolicking birds, animals and humans)

鳥獣人物戯画より

平成27年度化学物質の内分泌かく乱作用に関する公開セミナー(EXTEND2010)5820 jk

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以上、御清聴ありがとうございました。終わります。