

Retraction

MEDICAL SCIENCES

Retraction for “Atrial natriuretic peptide prevents cancer metastasis through vascular endothelial cells,” by Takashi Nojiri, Hiroshi Hosoda, Takeshi Tokudome, Koichi Miura, Shin Ishikane, Kentaro Otani, Ichiro Kishimoto, Yasushi Shintani, Masayoshi Inoue, Toru Kimura, Noriyoshi Sawabata, Masato Minami, Tomoyuki Nakagiri, Soichiro Funaki, Yukiyasu Takeuchi, Hajime Maeda, Hiroyasu Kidoya, Hiroshi Kiyonari, Go Shioi, Yuji Arai, Takeshi Hasegawa, Nobuyuki Takakura, Megumi Hori, Yuko Ohno, Mikiya Miyazato, Naoki Mochizuki, Meinoshin Okumura, and Kenji Kangawa, which was first published March 16, 2015; 10.1073/pnas.1417273112 (*Proc. Natl. Acad. Sci. U.S.A.* **112**, 4086–4091).

The editors note that, based on the recommendation of the National Cerebral and Cardiovascular Center (NCVC) in Osaka, Japan, we are retracting this paper. An NCVC investigative committee has identified several areas of concern related to Fig. 4E, Fig. S8, and Table S3. The NCVC committee notes, “We believe this paper should be withdrawn, and we have communicated our stance to the lead and corresponding authors.”

Specific concerns of the committee are noted below:

Fig. 4E in the originally published version of the manuscript: “The source data used to calculate the secondary measures (i.e., second-order data) for the LPS(0)/Control and LPS(0)/ANP groups are missing. Further, certain values were excluded from the calculation of mean E-selectin mRNA expression in the remaining four groups. Similarly, associated standard error (SE) values were calculated based on data obtained from different experiments.”

Fig. S8 in the originally published version of the manuscript: “Statistical analyses were conducted in an improper manner. The experiments are presented as having been conducted on five groups. However, in reality, the dataset consisted of measurements from four groups in an experiment performed on October 23, 2014 [vehicle iv./ANP iv. (0.025 γ)/vehicle sc./ANP

sc. (0.5 γ)] that were combined with partial data of a vehicle iv. condition and complete data of an ANP iv. (0.1 γ) condition from a prior experiment dated March 14, 2014.... Therefore, it was inappropriate to run statistical comparisons between the vehicle iv. and ANP iv. (0.1 γ) groups.”

Table S3 in the originally published version of the manuscript: “The paper purports to calculate several hemodynamic parameters at the individual and group levels... the five raw (zero-order) measurements from the same mouse were averaged to obtain the individual (first-order) mean, which were then averaged across the four mice in the respective groups to obtain the group (second-order) mean. Second-order data for heart rate (HR) have also been reported for each group; however, these were calculated as the mean \pm SE of six values apparently chosen at random from the raw dataset (which consisted of five measurements per mouse \times four individuals = 20 data points in total), and not of the four individual means.”

The undersigned authors have agreed to this retraction:

Hiroshi Hosoda, Takeshi Tokudome, Koichi Miura, Shin Ishikane, Kentaro Otani, Ichiro Kishimoto, Yasushi Shintani, Masayoshi Inoue, Toru Kimura, Noriyoshi Sawabata, Masato Minami, Tomoyuki Nakagiri, Soichiro Funaki, Yukiyasu Takeuchi, Hajime Maeda, Hiroyasu Kidoya, Hiroshi Kiyonari, Go Shioi, Yuji Arai, Takeshi Hasegawa, Nobuyuki Takakura, Megumi Hori, Yuko Ohno, Mikiya Miyazato, Naoki Mochizuki, Meinoshin Okumura, and Kenji Kangawa.

May R. Berenbaum
Editor-in-Chief

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