Erratum

Erratum to “Peroxisome Proliferator-Activated Receptors Alpha, Beta, and Gamma mRNA and Protein Expression in Human Fetal Tissues”

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In the above-mentioned paper, the expression of PPAR γ was incorrectly determined based on the quantification of a 50 kD band on the Western blots. This band aligned with what was believed to be a positive control band in the U937 whole cell extract, a control reagent recommended by the supplier of the primary antibody, SC-7196 (Santa Cruz Biotechnologies, Santa Cruz, CA). Based on recent information described by Foreman et al. [1], it is clear that this band is not PPAR γ but was a nonspecific immunoreactive protein detected by SC-7196. This nonspecific protein was abundantly detected by SC-7196 in U937 and COS-1 cells as well as across all human fetal protein samples. Immunoprecipitation of COS-1 cell lysate using agarose-conjugated SC-7196 resulted in a single band on a Coomassie Blue-stained gel. This band was subjected to digestion, peptide extraction, and sequence analysis using MALDI-MSMS, and the protein was identified as cytoplasmic actin with a decisive score (human SwissProt database, 60% protein coverage using the 15 highest scoring peptide groups and two lower scoring but acceptable peptides).

A specific band for PPAR γ , (calculated molecular weight for human PPAR γ 1 = 54.55 kD) was identified on our Western blots by performing new experiments in which in vitro translated human PPAR γ 1 (provided by J. Peters, Pennsylvania State University) was compared with human fetal tissue lysates (Figure 1). These experiments also included COS-1 cell lysate as a negative control and U937 cell lysate. The Western blots of the fetal tissues were all reanalyzed using

FIGURE 1: Western blot showing the comparison of banding patterns in COS-1 cell lysate, U937 cell lysate, in vitro translated human PPAR γ 1, and tissue lysate from human fetal stomach samples. The ~55 kD band of human PPAR γ 1 and corresponding band in stomach tissue lysate is marked with an asterisk (*). The nonspecific, cytoplasmic actin band is marked with an arrow.

the ~55 kD band that aligned with the in vitro translated human PPAR γ 1. Based on this reanalysis, the expression of PPAR γ protein shown in (c) of Figures 1–9 are replaced by Figure 2. The data summary described in Table 1 of the above-mentioned paper regarding the change in PPAR γ protein expression with fetal age is replaced by Table 1.

FIGURE 2: PPAR γ protein expression is shown across the fetal age range for each tissue. Western blot density normalized to glyceraldehyde-3-phosphate dehydrogenase (GAPDH). If only one sample was available for a particular age, then an error term could not be calculated and no SEM bar is shown. Regression analysis evaluated change with age. Dashed lines are the 95% confidence interval.

TABLE 1

Tissue	Protein change with age	
Thymus	NS	
Intestine	Increase	$P < .01$
Spleen	Decrease	$P < .001$
Liver	Increase	$P < .05$
Kidney	Decrease	$P < .05$
Lung	Decrease	$P < .001$
Stomach	NS	
Heart	Decrease	$P < .05$
Adrenal	Decrease	$P < .05$

NS = no significant change with age.

should be of value to investigators interested in detecting PPAR γ protein.

References

[1] J. E. Foreman, J. M. Sorg, K. S. McGinnis et al., "Erratum: to Regulation of peroxisome proliferator-activated receptor- β/δ by the APC/ β -CATENIN pathway and nonsteroidal antiinflammatory drugs," *Molecular Carcinogenesis*, in press.

The authors regret this unexpected error. The clarification of the recognition patterns of this primary antibody