Reviewer's report

Title: Topical insulin-like growth factor-1 treatment using gelatin hydrogels for glucocorticoid-resistant sudden sensorineural hearing loss: a prospective clinical trial

Version: 1 Date: 20 September 2010

Reviewer: Steven Rauch

Reviewer's report:

This is a single-armed open label trial of insulin-like growth factor-1 (IGF-1) administered by intratympanic injection in a hydrogel vehicle for treatment of idiopathic sudden sensorineural hearing loss unresponsive to a short course of oral glucocorticoid therapy. The paper is clear and well-written. The study design is sound. The findings are important. The study’s primary flaw, acknowledged by the authors, is the lack of a randomized contemporaneous control group; they use historical controls from a different treatment modality (hyperbaric oxygen therapy). Nonetheless, the approach and the results are interesting and deserve consideration by the clinical otology community.

Major Compulsory Revisions: None

Minor Essential Revisions: There appears to be a typographical error in the first paragraph of the Introduction in which the authors state that there are 4000 new cases of SSNHL annually in the USA. Since the annual incidence of SSNHL is noted to be 5-30/100,000 population, the USA incidence should probably 40,000 annual cases.

Discretionary Revisions: None

Quality of written English: Acceptable

Statistical review: Yes, but I do not feel adequately qualified to assess the statistics.

Declaration of competing interests:

Yes. I receive research funding from Otonomy, Inc, a pharmaceutical company that manufactures otologic drugs in a hydrogel vehicle.

No other competing interests.