

The Mow-NIH Alliance

Charles W. McCutchen

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Starting with the nineteen seventies research on joint lubrication in the U. S. A. has been dominated by Professor Van C. Mow. The Professor's spectacular discoveries, Torzilli-Mow theory, the mechanical pumping effect and the self-generating mechanism, were erroneous nonsense, but they were official science, generously supported by the taxpayer. People who did not accept them lost Government funding.

The Professor rose and rose, so much so that the Mow Prize, \$1,000 and a bronze medal bearing Mow's portrait, is now awarded yearly to a biomechanician.

Mow and associates eventually accepted my discovery that self-pressurization of pore fluid lubricates cartilage. But now they claim credit for the associated mathematics done by M. A. Biot and myself, the same theory that Mow once said was wrong and had to be replaced by Torzilli-Mow theory (Ateshian, 2009).

This is government-supported science as imagined by the Tea Party. I recently tried to get NIH to look into why it supported a scientist with Mow's record and gave him the power to make or break careers. The reply, by Stephen L. Katz, Director of the Arthritis Institute, was that there was nothing that needed to be looked into, an answer so silly that I asked questions including, "Could NIH please list the Professor's discoveries?" Rather than answer, NIH stopped communicating with me.

Here, a window into NIH thought during Mow's production and promotion of nonsense, is a memo from Ileen Stewart, former Executive Secretary of the Orthopedics and Musculoskeletal Diseases Study Section of NIH, to Dr. Shulman, her boss and mine.

Date February 11, 1987

From Ileen E. Stewart, Executive Secretary
Orthopedics and Musculoskeletal Study Section

Subject Charles McCutchen phone call and follow-up communications (copies attached)

To Lawrence E. Shulman, M. D., Director
National Institute of Arthritis,
Musculoskeletal and Skin Diseases.

I received a phone call from Charles McCutchen (who is listed as working in Intramural NIADDK) on February 4, following referral by Steve Gordon. He talked for over one hour, was often repetitive, but the essential points were:

(1) Dr. Van Mow (former member of the ORTH Study Section) is a charlatan. Mow's theory of cartilage fluid flow is wrong. Everyone in the field is "afraid" of Van Mow and will not disagree with him (except McCutchen).

(2) He (McCutchen) has the correct theory ("weeping lubrication") but no one in orthopedics will accept it.

(3) All Mow's students and associates are likewise wrong. This includes Dr. Peter Torzilli, who was recently appointed to the Study Section. The more-than-inference was that he should be removed.

(4) There is no way for those who are "right" to obtain Federal funding while any of Mow's group are on the Study Section. Among those who "understand" are Dr. Robert Mann (MIT), Dr. David A. Swann (Harvard) and Douglas Kenyan [sic] (formerly MIT). The claim was made that none of these people (or their students) can obtain Federal support because of the Mow "bias" of the Study Section.

My only recourse was to point out that: (1) I intended to do nothing about Torzilli's appointment since McCutchen had supplied no valid reason why I should and I always watch for evidence of bias in reviews; (2) Theories in science "work themselves out" as correct or incorrect, on the average, in 10 years. (3) It was up to him to publish his theory in peer-reviewed journals to establish his claims. His last publication was some 20 years ago. (4) I was in no position to "arbitrate" his quarrel.

I have since talked with Van Mow. He states that the feud has been going on for more than 12 years, with McCutchen appearing at meetings, including international ones, to needle Mow and expound on weeping lubrication. Mow has a thick file on all past exchanges. Certainly the orthopedic community, here and abroad, has accepted Mow's work as valid. A recent Finland meeting (chaired by Dr. David Van Sickle, Purdue University [in the event, by Benjamin Hillberry of Purdue]) had another Mow-McCutchen face off. It might be helpful to have Van Sickle's version of the most recent encounter.

I would appreciate whatever you can do to close this matter as far as NIH is concerned. I know Steve Gordon has spent hours listening to McCutchen. You will note, in the memos that I have just received, that McCutchen promises “I propose, over a period of time, to give you the background of the argument.” Help!

By asking to remain ignorant of the dispute, Ms. Stewart appears neutral, which falls in with NIH’s claim that it lets scientists run science. (If something goes wrong it is not NIH’s fault.) Alas, when a discipline’s specialists are given free rein there is the opportunity for rule by cabal.

Ms. Stewart’s job included choosing the members of her Study Section. I asked her to put one or two dissidents on it. She refused; doing so would be political.

Though Ms. Stewart’s memo says that Program Director Stephen L. Gordon sent me to her, it does not mention that Gordon knew that Torzilli-Mow theory and the mechanical pumping effect were both wrong. But he did, having learned it from a review five years previously by Lyle Mokros of criticisms I had prepared of Mow’s work. Gordon’s telephone notes read, “Agree technical part.” Toned down to, “In many instances he agreed that specific derivation and computation errors may have appeared in the literature,” that conclusion was sent to Dr. Shulman.

Gordon had not wanted to solicit the review. It took the intercession of Joseph E. Rall, NIH Deputy Director for Intramural Studies, to get him to do it. Mokros did not want to put his review on paper, so he telephoned it instead. And rather than concluding that supporting Mow was a waste of money, Mokros and Gordon agreed that he might do better in the future.

Obviously they were frightened. Although Mow depended on Gordon’s program for support, Gordon was afraid of Mow rather than the other way around. NIH may deny that Mow had power over careers, but Gordon and Mokros clearly thought he did.

Mow thought so too. At the meeting at Kuopio in Finland in 1986 mentioned in Ms. Stewart’s memo, my poster said, about the similarity between the mechanical pumping flow pattern and the self-generating flow pattern, “They [Mow and colleagues] did not remark on this fact that similar flow patterns were produced by different boundary conditions.”

At a before-sauna session I asked Mow if the mechanical pumping effect was alive or dead. He said it was alive. Probably I went on to talk about the switching of boundary conditions, but I remember only that we argued and interrupted each other. What I said must have impressed Mow because the next day was unforgettable. Before lectures began he drew me aside and said, "I offer you my condolences in advance." He then asked if I was going to say that afternoon what I had said the previous day. I said yes. "If you do," he said, "I will destroy you."

References

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