

**IN THE UNITED STATES DISTRICT COURT  
FOR THE SOUTHERN DISTRICT OF TEXAS  
HOUSTON DIVISION**

**PEI-HRENG HOR**

**Plaintiff,**

**v.**

**CHING-WU “PAUL” CHU**

**Defendant.**

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**CIVIL ACTION NO. 4:08-CV-3584**

**DEFENDANT CHU’S REPLY  
TO PLAINTIFF HOR’S RESPONSE (DOC. NO. 201) TO DEFENDANT’S MOTION  
FOR JUDGMENT BASED ON EQUITABLE ESTOPPEL (DOC. NO. 199)**

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## I. SUMMARY OF ARGUMENT

Under Federal Circuit law, equitable estoppel based on conduct before patent issuance is a viable defense to Hor's inventorship claim. Prior to patent issuance, Hor submitted a declaration supporting Chu as the sole inventor. In his declaration, he failed to assert a claim of inventorship to the Y substitution or the rare earth superconductors even though he had a duty to do so. Hor's conduct and silence was misleading in view of his claims today. Hor, instead of taking ownership of his silence to any claim of inventorship, blames Chu for not making him an inventor. But it is Hor who had the opportunity and responsibility to assert his claim, not Chu. Hor also attacks Cox for not investigating Hor as an inventor, but Cox's actions or decisions cannot be imputed to Chu as a matter of law.<sup>1</sup>

Chu, University of Houston ("UH"), and Cox relied on Hor's failure to assert an inventorship claim and on his submission of a declaration in the *Wu v. Chu* Interference. Until 2006, Chu only knew of Wu as challenging his status as the sole inventor—Wu ultimately lost. Chu is prejudiced in presenting his defense by the passage of time that has faded witnesses' memories. As explained in Chu's Motion for Judgment on the Inventorship Claims of Pei-Herng Hor and Ruling Meng Based on Equitable Estoppel (hereinafter "Motion for Judgment"),<sup>2</sup> and below, Chu has proved by a preponderance of the evidence that equitable estoppel bars Hor's claim of inventorship.

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<sup>1</sup> *Hor v. Chu*, 699 F.3d 1331, 1337 (Fed. Cir. 2012).

<sup>2</sup> Doc. No. 199.

## II. HOR'S STATEMENTS OF FACT REGARDING INVENTORSHIP ARE IMMATERIAL TO THE ESTOPPEL ISSUE AND HAVE BEEN REBUTTED

Hor's Response includes many factual assertions that fail to resolve the estoppel issue and instead, relate only to inventorship (*see* Hor Response at 2-7, 30-33). Chu finds it necessary to include this section, which rebuts Hor's misstatements and unsupported allegations regarding inventorship. This section, however, should be reviewed by the Court in resolving the inventorship contentions.

### A. Hor Fails to Rebut Chu's Prior Conception of Yttrium

Hor's claim that Chu never told Hor or others about his idea for Y in December 1986 is contradicted by the documentary evidence.<sup>3</sup> Chu's conception of Y in December 1986 is evidenced by his numerous calendar entries and the declarations and deposition testimony of Meng from the *Wu v. Chu* interference.<sup>4</sup> Further, Hor's statement regarding Chu's conception is misleading.<sup>5</sup> Chu never used the early January 1987 meeting between Hor, Meng, Gao, and Wu as "evidence of his prior conception;" rather, Chu has always relied on his conception in mid-December 1986 of Y, Yb, and Lu as possible substitutions for La in LBCO.<sup>6</sup>

### B. Hor's Reasoning for His Alleged Yttrium Suggestion is Contradicted by the Lab's Calcium Work

Hor's claim that he conceived of Y in early January 1987 because Ca did not raise the  $T_c$  is contradicted by the documentary evidence.<sup>7</sup> As noted in Chu's Findings of Fact,<sup>8</sup> Ca was not

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<sup>3</sup> *See* Doc. No. 201, Hor Response at 4 ("Dr. Chu did not tell Dr. Hor that he had already thought of the idea of Yttrium substitution at that time"); Doc. No. 198, Hor Findings of Fact at ¶ 70.

<sup>4</sup> Ex. 447, Chu Calendar; *see also* Doc No. 203, Chu Findings of Fact at ¶¶ 21-29.

<sup>5</sup> Doc. No. 201, Hor Response at 4 ("Dr. Chu previously used this meeting as evidence of his prior conception of YBCO to defeat Dr. Wu's claim of inventorship in a patent interference proceeding filed by Dr. Wu").

<sup>6</sup> *See* Doc. No. 203, Chu Findings of Fact at ¶¶ 21-27.

<sup>7</sup> *See* Doc. No. 201, Hor Response at 3 ("a Calcium substitution for Strontium actually decreased  $T_c$ . ... Dr. Hor initiated a discussion in his office with Dr. Wu, Meng, and Li Gao ... regarding where their research should go after Calcium substitution proved to be a dead end."); Doc. No. 198, Hor Findings of Fact at ¶ 52.

formulated and tested until *after* the meeting in which Hor claims he suggested Y to Wu.<sup>9</sup> Ca testing continued at UH well after that meeting—up to January 19, 1987.<sup>10</sup> The lab would not have done Ca work if Hor already knew that “Calcium substitution proved to be a dead end.”<sup>11</sup> Hor admitted he found *no* UH records showing that Ca had been unsuccessfully tested before his asserted Y suggestion.<sup>12</sup> Thus, Hor could not possibly have suggested Y based on negative Ca results as they were not available until much later.<sup>13</sup>

**C. Hor’s Basis for the Yttrium Order in mid-January 1987 is Contradicted by the Documentary Evidence**

Hor’s explanation for the ordering of Y in mid-January 1987, well after his alleged Y suggestion to Wu, is contradicted by multiple documents. Hor claims that Meng waited to order Y until mid-January 1987 because UH was closed for winter break,<sup>14</sup> but at least two documents show that the lab was open. A Board of Regents document shows that UH was only closed from December 24, 1986 to January 2, 1987.<sup>15</sup> The UH chemical supply room was thus open the week of January 5 to 9, 1987—only a few days after Hor claimed he suggested Y in the Wu meeting.<sup>16</sup> A lab order dated January 8, 1987, also demonstrates that Meng could have ordered

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<sup>8</sup> Doc. No. 203, Chu Findings of Fact at ¶ 32.

<sup>9</sup> Ex. 20, Lab Notebook Entries at H17, 19-20; Ex. 419, Lab Notebook Entries at H857 (dated 1-19-87), H867 (dated 1-16-87) and H875 (dated 1-14-87).

<sup>10</sup> Ex. 419, Lab Notebook Entry at H857 (dated 1-19-87).

<sup>11</sup> Doc. No. 201, Hor Response at 26.

<sup>12</sup> Doc. No. 203, Chu Findings of Fact at ¶ 32.

<sup>13</sup> No one, except Meng (an interested party), supports Hor as personally suggesting Y to Wu.

<sup>14</sup> *See* Doc. No. 201, Hor Response at 4, 5 (“Because the UH was on winter break, the order was not placed by Meng until January 12, 1987. This was the earliest date that she could have ordered it due to the UH winter break.”); Doc. No. 198, Hor Findings of Fact at ¶¶ 53, 64.

<sup>15</sup> Doc. No. 203, Chu Findings of Fact at ¶ 37; Ex. 412, Board of Regents: Minutes of Meeting (1986) at CHU003344.

<sup>16</sup> *Id.*

Y before January 12, 1987—a contention that contradicts Hor’s story.<sup>17</sup> Thus, Hor cannot prove by clear and convincing evidence that he personally suggested the Y substitution to Wu.

**D. Hor Never Claimed the mid-January Yttrium Formulations as His, but Now Revises His Story**

Hor claims that the first Y formulations in the UH lab notebooks were ones he asked Meng to record, but cites no evidence to support his contention.<sup>18</sup> Hor simply points to a lab notebook entry with Y substitutions on January 13, 1987 in his Findings of Fact, but that entry fails to show that they were Hor’s ideas.<sup>19</sup> In fact, Hor never testified that these formulations were his nor did Meng support Hor’s version of events.<sup>20</sup>

Hor similarly takes credit for later Y formulations without any evidence other than his own testimony.<sup>21</sup> He claims that on January 29, 1987, Chu asked him to write down the *elements* that Hor had suggested to Wu in Houston,<sup>22</sup> but Hor then claims he wrote down *formulas* that included Wu’s sample.<sup>23</sup> Hor has never testified that he suggested anything other than the Y element to Wu, but now takes credit for a series of Y formulations. Not only is the lab entry in Meng’s handwriting, Hor fails to explain how the suggestion of one element turned into a series of formulations.<sup>24</sup>

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<sup>17</sup> Ex. 442, H1875 (lab order of 01-08-1987 for Barium Carbonate).

<sup>18</sup> Doc. No. 201, Hor Response at 4 (“Hor also asked Meng to record formulas for conducting the Yttrium substitution experiments, which she did on about January 13, 1987.”).

<sup>19</sup> Doc. No. 198, Hor Findings of Fact at ¶ 68 (citing Ex. 8, H 47-49).

<sup>20</sup> Chu cannot find any testimony at trial where Hor took credit for the Y formulations listed on January 13, 1987, nor does Hor point to any.

<sup>21</sup> Doc. No. 201, Hor Response at 6 (“Dr. Hor’s formulas were then recorded by Meng in her laboratory notebook dated January 29, 1987.”). *See also* Ex. 21, H50

<sup>22</sup> Doc. No. 201, Hor Response at 6.

<sup>23</sup> *Id.* (“The formula Dr. Wu used to make his sample was included among Dr. Hor’s formulas.”).

<sup>24</sup> *See* Ex. 21, H50. Hor also admitted that Chu’s January 9, 1987 patent disclosure covered Wu’s formula. Doc. No. 185 at 148-49, 51-55; Ex. 82, Chu Patent Disclosure.

**E. Hor's Alleged Work with the Rare-Earth Substitutions in March 1987 Has Been Rebutted**

Hor's position that he conceived of various magnetic rare-earth superconductors in March 1987 has been soundly rebutted by Chu.<sup>25</sup> Chu has pointed out that Hor failed to rebut (i) Chu's partial substitution work with Gd at the end of February 1987, (ii) Chu's conception of all the other magnetic rare-earths as potential superconductors, which preceded Hor's alleged conception of the complete substitution of Gd for Y in YBCO 123, and (iii) Chu's work in March 1987 confirming Eu and Sm as new superconductors, which also preceded Hor's alleged substitution testing with Gd.<sup>26</sup>

Further, Hor's continued attack on Chu's Gd partial substitution work in late-February 1987 as actually being work with Gallium (Ga) is a desperate attempt to impugn Chu's earlier rare-earth work.<sup>27</sup> Hor's contention lacks all credibility. Chu has already addressed Hor's unreasonable claim in Chu's Findings of Fact.<sup>28</sup>

**F. Hor's Other Contention Regarding Evidence of Chu's Partial Substitution Work is False**

Hor's statement that "[t]he only evidence of small fraction partial substitution of other rare earths for Yttrium is in formulas which were written by Y.Q. Wang in one of the lab notebooks"<sup>29</sup> is also false. Hor appears to overlook the evidence, because Chu's Findings of Fact make clear that Meng recorded small fraction (1% and 5%) partial substitutions of rare earths for Y on February 27, 1987 (relevant portions boxed in red):<sup>30</sup>

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<sup>25</sup> See Doc. No. 201, Hor Response at 7; Doc. No. 198, Hor Findings of Fact at ¶¶ 110-121.

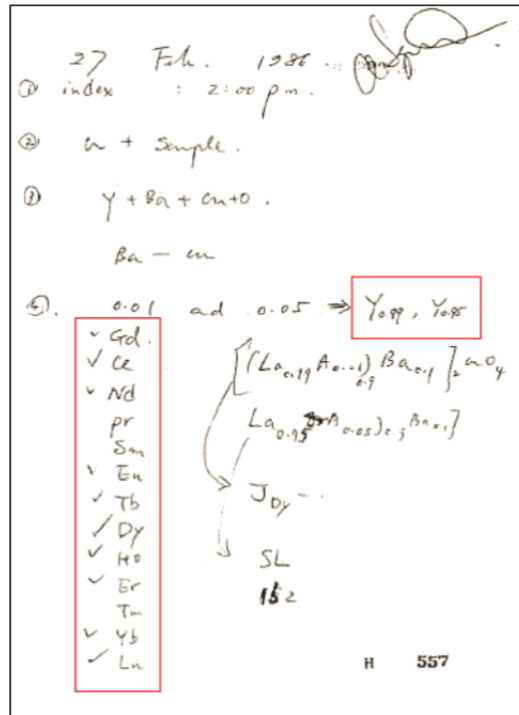
<sup>26</sup> See Doc. No. 203, Chu Findings of Fact at ¶ 65.

<sup>27</sup> See Doc. No. 201, Hor Response at 33 ("There is no evidence in the lab records that any of these small fraction partial substitution compounds were ever created.").

<sup>28</sup> See Doc. No. 203, Chu Findings of Fact at ¶ 74.

<sup>29</sup> See Doc. No. 201, Hor Response at 33.

<sup>30</sup> See Doc. No. 203, Chu Findings of Fact at ¶¶ 76-77.



In addition, Chu’s partial substitution of Gd was tested on February 24, 1987.<sup>31</sup> Despite Hor’s contention being soundly rebutted, he continues this false argument.

**III. THE FEDERAL CIRCUIT RECOGNIZES THAT EQUITABLE ESTOPPEL CAN BE BASED UPON CONDUCT PRIOR TO PATENT ISSUANCE**

An incorrect premise of Hor is that equitable estoppel does not apply until patent issuance and that *Hor v. Chu* directly applies to the equitable estoppel defense. As Chu explained in his Motion for Judgment, equitable estoppel can be found based on conduct that occurs prior to patent issuance. In *Aukerman*, the Federal Circuit specifically cited the precedential case of *MCV, Inc. v. King-Sealy Thermos Co.*<sup>32</sup> for the proposition that “equitable estoppel precluded claim of co-ownership and inventorship against the patentee.”<sup>33</sup> In *MCV*, the Federal Circuit

<sup>31</sup> Ex. 93, H 1340.

<sup>32</sup> 870 F.2d 1568 (Fed. Cir. 1989).

<sup>33</sup> *A.C. Aukerman Co. v. R.L. Chaides Constr. Co.*, 960 F.2d 1020, 1042, n. 17 (Fed. Cir. 1992) (*en banc*) (citing *MCV*, 870 F.2d at 1571-74)



found equitable estoppel barred a claim of inventorship based on misleading conduct that occurred pre-patent issuance.

Hor incorrectly argues that the Federal Circuit in *Hor v. Chu* held that Hor had no duty to assert his inventorship before the patents issued.<sup>34</sup> The only substantive ruling in the case, however, related to laches, not estoppel.<sup>35</sup> Further, the Federal Circuit in *MCV* clearly recognized the doctrine of estoppel as applied to claims of inventorship, even when the events occurred before the patents issued.<sup>36</sup> Also, in *Rambus, Inc. v. Infineon Tech. AG*, the Eastern District of Virginia acknowledged that same principle.<sup>37</sup>

#### **IV. HOR'S MISLEADING ACTIONS AND INACTIONS**

The evidence shows that Hor's silence coupled with support for Chu in his declaration was misleading in view of post-2006 claims of inventorship. Hor attempts to argue that his actions were not misleading because (1) under *Hor v. Chu* he had no duty to speak prior to patent issuance, (2) his declaration was truthful, and (3) Chu knew Hor considered himself to be an inventor. Hor is wrong on each point.

##### **A. Hor Failed in His Duty to Speak**

Regarding the duty to speak, Hor had the relationship and contact with Chu to require him to speak out if he claimed inventorship. Hor and Chu had been together for years, working in the same lab. (Hor, Doc. No. 184 at 74). During the Invention Period (November 1986-March 1987), Hor considered Chu to be his mentor and a father figure. (Hor, Doc. No. 184 at 80-81). Because of their close relationship, Hor had a duty to speak make his inventorship claim known.

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<sup>34</sup> Doc No. 201 at 24-25.

<sup>35</sup> 699 F.3d at 1136-37.

<sup>36</sup> *MCV*, 870 F.2d 1568.

<sup>37</sup> 326 F. Supp. 2d 721, 738 (E.D. Va. 2004).

UH also placed a duty on Hor to disclose any potential inventions. Although Hor alleges that UH's IP policies were almost non-existent and did not place a duty on Hor to speak, the evidence shows that on May 29, 1987, Hor signed the first of three agreements in which is promised to notify UH of any inventions he conceived.<sup>38</sup> Hor did not abide by his duty as he failed to disclose his claim of inventorship. Thus, Hor had a duty to speak under his contracts with UH, but failed to speak. In addition, in the present litigation, Hor attempted to leverage his appointment by Chu as API into an inference that he was the chief inventor. If Hor took his responsibility as API seriously, he had an even higher duty to disclose his alleged inventorship.<sup>39</sup>

#### **B. Hor's Submission of Declarations Was Affirmative Misleading Action**

Not only was Hor silent about a claim of inventorship, but he engaged in misleading actions as well. Hor submitted a declaration in 1990 that he now claims was not misleading and which he was tricked into signing.<sup>40</sup> Hor, however, does not offer any evidence of how he was tricked into signing the document. Cox did prepare the declaration, but Hor read and signed the document, declaring that the statements were true.<sup>41</sup> Cox testified that he drafted the declaration based on information he received from Hor and Meng, and that he also explained to Hor the purpose of the declaration. (Cox, Doc. No. 187 at 141-42, 146). Thus, Hor knew what he was signing and that the purpose of the declaration was, i.e., to defend against Wu's claim of inventorship in the *Wu v. Chu* Interference. Hor also claims that he did not know Meng had signed a declaration (Hor, Doc. No. 185 at 57), yet Meng testifies that she and Hor had a discussion about the serious nature of providing testimony. (*Id.* at 49-50).

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<sup>38</sup> Ex. 462, Patent Assignment Agreement, May 29, 1987; *see also* Ex. 461, Patent Disclosure and Assignment Agreement, December 5 and 12, 1988.

<sup>39</sup> Chu will not even dignify with anything but a strong denial that Chu asked permission of Hor to assume the role of mouthpiece for the group.

<sup>40</sup> Hor, Doc. No. 201 at 27.

<sup>41</sup> Ex. 5, Hor 1990 Declaration at 2.

Hor also argues that the statement in his 1990 declaration, where he and Meng discussed the Y substitution jointly with Wu, is not misleading.<sup>42</sup> Hor could offer no evidence that he ever told Chu or Cox before 2006 that it was he, rather than Hor and Meng jointly, who actually suggested Y to Dr. Wu. His statement is inconsistent with his claims today that he *alone* provided the idea Y of substitution to Wu. (Hor, Doc. No. 184 at 132-33). This inconsistency is misleading action by Hor.

Before Hor's 1990 declaration, there was at least one meeting between Cox, Meng, Chu and Hor in which Wu's claim of inventorship was discussed. It is undisputed that in the meeting, Chu clearly claimed the conception of Y in mid-December 1986 and recalled a phone call to Meng about disclosing that conception. (Hor, Doc. No. 185 at 39; Chu, Doc No. 190 at 197). In that meeting, Meng did not deny the phone call. (Meng, Doc. No. 186 at 40). According to her, she said she didn't remember. (*Id.*) Likewise, Hor did not deny the phone call, but said that he did not remember, when in fact, he admits that he did remember. (Hor, Doc. No. 185 at 41-42).

**C. Hor's Silence Regarding a Claim of Inventorship in Meetings With Cox Was Misleading**

Hor attempts to explain his silence by claiming that Chu and Cox knew he claimed inventorship, even though there is not a shred of evidence to support that charge. In fact, the evidence shows that Hor did not explicitly make a claim of inventorship to anyone, including Cox or Chu, before 2006. There is only evidence that in the Cox meeting, Chu asked if everyone could be inventors and Cox responded "no." (Cox, Doc. No. 186 at 231). In the meeting, Hor also left the room after Cox made a comment about a "pair of hands." (Doc. No. 190 at 199). Chu followed Hor out of the room and said he would talk to Cox, which Chu did. (*Id.*) But Hor did not follow-up. (Hor, Doc. No. 185 at 62, 197-98). Even more, Hor never asserted to Cox or

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<sup>42</sup> Ex. 5, Hor 1990 Declaration at ¶2 ("Ruling and I discussed the concept that substitution of Y for La . . .").

Chu that he was the inventor of the rare-earth superconductors as he claims today. Hor's misleading silence was entirely inconsistent with his current inventorship claims to the Y substitution and to the substitution of the rare-earths.

**D. Based on *MCV* and *Stewart*, Hor's Actions and Inaction Was Misleading Conduct**

Hor also argues that *MCV* "has completely different facts" than the case at hand. While the *MCV* court, in finding misleading conduct, referred to the alleged inventors' statements that the marketing rights were more important than inventorship and that they would assist in any way to obtain the patent,<sup>43</sup> the court also considered that the alleged inventors knew a patent application had been filed and failed to assert a claim of co-inventorship until years later. Likewise, in *Stewart & Stevenson Services, Inc. v. Serv-Tech, Inc.*,<sup>44</sup> the court found equitable estoppel applied, in part, based upon Stewart & Stevenson's failure to assert claims of ownership even after learning that patents were filed. In determining that the alleged inventors engaged in misleading conduct, the court also referred to the alleged inventors' letter referring to a patent pending product as defendant's proprietary information.

Similar to the alleged inventors in *MCV* and *Stewart*, Hor knew about the patent applications at least from his involvement in the meeting with Chu, Cox, and Meng and from his declaration. Hor knew that he was meeting with Cox regarding a patent application, but remained silent about any claim of inventorship in that meeting. (Hor, Doc. No. 185 at 38). From that meeting he also knew that he was not a named inventor. That was made clear to Hor when Cox stated that a "pair of hands" is not an inventor. (Hor, Doc. No. 185 at 175-76).

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<sup>43</sup> *MCV*, 870 F.2d at 1572.

<sup>44</sup> 794 F. Supp. 202 (S.D. Tex. 1992).

Additionally, Hor had a close and trusting relationship with Chu. He worked with Chu and considered him his mentor, but did not speak a word about being an inventor. (Hor, Doc. No. 184 at 80-81). By remaining silent, Hor represented that he was not asserting a claim of inventorship, which was evident by him not following up about his inventorship status or broaching the subject with Chu, Cox, or UH until 2006. (Hor, Doc. No. 185 at 62, 197-98). Further, Hor signed a declaration inconsistent with his claims in this case. Hor's statements in his declaration are tantamount to the letter in *Stewart*, and combined with his silence, are misleading conduct.

Hor had every opportunity to inquire or claim inventorship in the Cox meeting, in his declaration, or any other time, but he did not. Hor's excuse is to blame Chu for not being named an inventor. According to Hor, Chu should have talked to Cox about Hor's claim and made it happen. But, the claimant must make a claim of inventorship. It was not Chu's responsibility, it was Hor's.

#### **V. CHU, UH, AND COX'S RELIANCE WAS GENUINE**

Chu, UH, and Cox relied on Hor and Meng's support of Chu in defending the interferences before the Board of Patent Appeals and Interferences. Chu, UH, and Cox also relied on Hor's silence regarding any claims of inventorship, particularly in view of his meetings with Cox and the signing of a declaration related to the issue of inventorship of the patents-in-suit. Hor argues that Chu did not identify a single misleading act by Hor.<sup>45</sup> To the contrary, Hor's declaration was relied upon to support Chu's defense in the *Wu v. Chu* interference.

Cox's first meeting with Hor and Meng related to Wu's claim in the interference in February 1987. Surely, Cox explained to them that Wu was claiming to have invented the Y

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<sup>45</sup> Doc. 201 at 29.

substitution. Because of the lapse in time, no one remembers what else was said. Looking to the Y substitution discussion at that meeting, while Hor and Meng said they jointly made the suggestion to Wu, they also said they did not remember which of them originated the idea. (Cox, Doc. No. at 187 at 194-95). From that, Cox reasonably deduced that the first line of defense in the Interference was derivation—that is, that Wu derived from Hor and Meng’s joint suggestion which was the thrust of Hor’s declaration.

Hor argues that Chu was aware of Hor’s belief that he was an inventor because Hor was upset with Cox’s remarks about a “pair of hands” and walked out of the room.<sup>46</sup> Hor did not walk out of this meeting in response to Chu’s comment asking if all of them could be inventors. Rather, he walked out in response to Cox’s “pair of hands” comment. (Chu, Doc. No. 190 at 199). Hor also argues that he took Chu at his word when Chu said he would talk to Cox. The flip-side, however, is that Cox and Chu took Hor at *his* word (submitted in the declaration) and his inaction (silence as to a claim of inventorship) that he supported Chu and was not claiming inventorship. In any event, the evidence shows that Chu did speak to Cox after his conversation with Hor, yet Hor never followed up or broached the subject with Chu or Cox about a claim. (Chu, Doc. No. 190 at 199; Hor, Doc. No. 185 at 62, 197-98).

Hor also attempts to rely on circumstantial evidence such as his position as API, receipt of DuPont proceeds, and being listed as an author as reasons that Chu and Cox should have known Hor conceived Y and the other magnetic rare-earth superconductors.<sup>47</sup> Yet, Hor’s position as API was actually for administrative purposes. (Chu, Doc. No. 190 at 112-14). Moreover, there were many events going on in the lab that Hor did not know about, like the rare-

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<sup>46</sup> Doc. No. 201 at 27.

<sup>47</sup> Doc. No. 201 at 28.

earth orders or the partial substitutions. (Hor, Doc. No. 185 at 141, 159). Thus, his title of API had no bearing on whether he made inventive contributions because he did not even know what was going on in the lab. Even more, receiving DuPont proceeds does not equate to inventorship. Wu, who received the same amount as Hor and Meng, was not granted status as a co-inventor by the USPTO. Finally, being listed as an author on a scientific publication is a different determination than inventorship. (Cox, Doc. No. 187 at 168-69).

Thus, Chu, UH, and Cox relied on Hor's statements in his declaration and his silence as to any claim of inventorship in prosecuting and defending the patents-in-suit. As such, Chu has established the reliance necessary for the Court to bar Hor's inventorship claim under the doctrine of equitable estoppel.

## **VI. CHU'S DEFENSE WAS PLAGUED WITH EVIDENTIARY PREJUDICE**

Evidentiary prejudice is present in every aspect of this case. Two potential witnesses are dead and others that testified at trial could not remember certain events or provide specific testimony as to inventive contributions. Even the Court recognized that the non-party witnesses did not provide much help in determining inventorship. (Court, Doc. No. 187 at 119).

### **A. Party Witnesses Cannot Recall Important Events**

The parties also had a hard time recalling facts, particularly facts regarding meetings with Cox. The meeting between Cox, Hor, Meng, and Chu is critical to this case, yet the witnesses' memories regarding the meeting are either lost or not consistent. First, upon Cox asking who made the suggestion of Y (Meng, Doc. No. 186 at 39), Meng supposedly said she did not remember. (Meng, Doc. No. 186 at 40). Cox recalls that she said she did remember, and agreed with Chu. (Cox, Doc. No. 187 at 193-94). Chu could not recall her response. (Doc. No. 190 at 197).

Second, the testimony differed greatly on what happened next in the meeting. Chu asked something to the effect, “[c]an we all be inventors?” (Chu, Doc. No. 190 at 197-98). Meng testified that Chu said she and Hor *are* inventors. (Doc. No. 186 at 40). Hor testified that Chu said Hor and Meng *should be* inventors. (Doc. No. 185 at 43). Cox received Chu’s question as “[c]an’t we all be happy? Can’t we all be named inventors.” (Cox, Doc. No. 186 at 231). Cox answered “no.” (*Id.*)

Third, after Hor left the meeting, Chu walked out and told Hor he would talk to Cox. (*Id.*) He testified that he talked to Cox and was satisfied that Cox understood how the “lab worked.” (Doc. No. 190 at 199). Yet, Hor said that Chu promised he would talk to Cox and “straighten it up.” (Doc. No. 185 at 44). Again, an entirely different and self-serving description of what was said. These differences show the dimming of memories, and the willingness of Hor and Meng to fill in with their own self-serving version of the facts. If this dispute had come forward much earlier, Chu would have remembered the now forgotten details, including Meng’s response to Chu’s question about him calling in mid-December.

**B. The Absence and Faded Memories of Non-Party Witnesses Was Prejudicial to Chu**

The testimony of witnesses such as YaQi Wang could have helped Chu prove portions of his case, such as the partial substitutions, but the passage of time prevented him from recalling many facts.<sup>48</sup> Hor claims that because there is an alleged absence of evidence that such compounds were created, any testimony Wang could have provided should be disregarded.<sup>49</sup> Wang’s testimony is the exact type of evidence that Chu could have used to show that the partial

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<sup>48</sup> Doc. No. 199, Ex. A.

<sup>49</sup> Doc. No. 201 at 30.



substitution compounds were created, and is the exact evidence that Chu is prejudiced from presenting as part of his defense.

Further, Hor asserts that Chu does not explain how Weinstein's and Bechtold's recollections of certain events or the death of Gambrell and Huang prejudice his case.<sup>50</sup> These witnesses could have offered testimony that are of direct relevance to this case. For instance, Gambrell's testimony, as senior partner to Cox, would likely have explained his understanding of why Chu was listed as the sole inventor, and his understanding of the declarations signed by Hor and Meng. Although Hor claims that a privilege would have likely been raised for Gambrell's testimony, Cox testified without objection as to his understanding of inventorship.

In addition, Bechtold testified that his lab notebook is now lost. (Bechtold Dep., Doc. No. 180, 186-187). He also recalled discussions with Hor about partial substitutions. Undoubtedly, his personal lab notebook would have refreshed his memory about his involvement with partial substitutions, which are central to Chu's conception of the rare-earths. (Bechtold Dep., Doc. No. 180 at 179-187).

Similarly, the lab notebooks kept during the invention period have a recording of practically all of the work done during that period, but they do not answer the question of who actually conceived the ideas. Hor does not dispute that Chu is prejudiced by the lack of identifying information in the lab notebooks offered at trial. Even Hor and Meng could not rely on the lab notebooks to prove their claims of inventorship which, without the identification of who conceived the idea, does not prove by clear and convincing evidence that they were inventors. Even more, the fact that these claims were not brought until 2006 has encouraged Hor and Meng to make unfounded claims.

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<sup>50</sup> *Id.* at 31.

Hor also claims that Hazen's book (along with his notes) could have helped refresh witnesses' recollections, but none of the witnesses used anything from Hazen's book.

Chu relies on *Serdarvic v. Advanced Med. Optics, Inc.*<sup>51</sup> as support for the evidentiary prejudice Chu had to endure during trial because of the death of two witnesses, Peter Huang and Jim Gambrell, and the fading of witnesses' memories. Although *Serdarvic* is a laches case, it provides guidance because evidentiary prejudice for equitable estoppel is the same as it is for laches.<sup>52</sup>

Finally, Hor falsely asserts that Chu did not designate an expert on the issue of equitable estoppel because no such expert could be found. That is simply not true. In the hearing, the Court did not state it would allow an expert. The Court said it would consider a proposed written expert report, but was leaning against allowing testimony from the proposed expert. Thus, Chu, for economic reasons, decided to forego an expert. Nevertheless, the designation of an expert does not matter because Chu has proved evidentiary prejudice by a preponderance of the evidence.

In sum, Hor has attempted to take advantage of the passage of time, the lack of witnesses, and inefficiency of recollections to cause Chu to defend these claims without all the evidence that would have been available years ago, which establishes evidentiary prejudice.

## VII. CONCLUSION

Chu has proven each element of equitable estoppel by a preponderance of evidence. Hor misled Chu, UH, and Cox, not only in signing a declaration that supported Chu's inventorship, but also in remaining silent about any claim of inventorship to the Y substitution and rare-earth

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<sup>51</sup> 532 F.3d 1352 (Fed. Cir. 2008).

<sup>52</sup> *Hall v. Aqua Queen Mfg., Inc.*, 93 F.3d 1548, 1558 (Fed. Cir. 1996).

superconductors. Based upon the evidence, Hor's conduct years ago was misleading—that is, his declaration and silence is inconsistent with his claims in this lawsuit. Chu, UH, and Cox relied on Hor in prosecuting the patents-in-suit and defending the applications in the interferences. This case was tried with little direct evidence that could be corroborated. Non-party witnesses could not recall key events.

If Hor and Meng had indicated in any form or fashion that they felt they were inventors at the time of these developments and in meetings with Cox, this would have been cleared up long ago. Instead, the evidentiary prejudice goes on.

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Respectfully submitted,

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