미국 Harvard 대학의 신약물질 특허 – 제약회사 Merck에 기술이전 라이선스 + 해당 연구실 소속 Postdoc 연구원이 대학과 지도교수 상대로 공동발명자 주장, 계약위반, 특허권지분권 및 손해배상청구 소송 제기

사안의 개요

- 원고 연구원 Dr. Arefolov : 기업체 8년 근무 경력 연구원
- 2011년 Harvard chemistry lab, 지도교수 Matthew Shair 연구실 소속 Postdoc으로 근무 시작
- 해당 연구실에서 Cortistatin A 연구개발 프로젝트 진행 + 연구 참여 결과 신물질 특허 출원 및 등록 성공
- 그러나 특허 관련 서류에 Dr. Arefolov 발명자로 기재되지 않음
- 2016년 3월 제약회사 Merck와 라이선스 체결 – 계약금 $20 million + 추가 로열티 지급 조건
- 원고 Dr. Arefolov – 피고 하버드대학, 지도교수를 상대로 소송 제기
- 발명 기여 및 공동발명자 성립 주장 + 특허 지분권리 주장 + 손해배상청구

쟁점 – 대학 연구실 소속 postdoc 연구원의 공동발명자 해당 여부

첨부 – 소장의 요지

- Dr. Arefolov was part of the creative team that created theoretical as well as actual Cortistatin A analogs
- Arefolov contends that he "made significant contributions to the successful completion" of the project to develop novel analogs of a compound that went on to be licensed by Merck
- From the conception of a broad category of Cortistatin A analogs, to the creation of numerous specific analogs
- As a specific example, Arefolov's contribution to developing three compounds included in a patent application that lacks his name.
- Arefolov suggested one to Shair during a discussion and Shair "agreed that testing it made sense."
- Arefolov suggested another by email, and "devised the method for creating, and in fact created,"

실무적 포인트: 공동발명자 판단 – 명세서 전체 내용이 아니라 청구항 발명 기준 + 창작에 실질적 기여 여부 + 주장하는 자에게 구체적 입증자료로 입증해야 하는 입증책임 있음

소장의 일부 인용

40. When Dr. Arefolov started in Dr. Shair's lab, he was the only chemist working on the Cortistatin A Project other than Dr. Shair, and he was the only chemist devoting 100% of his time to the project.

41. During his time on the project, Dr. Arefolov was involved in almost all aspects of the project. He participated in frequent group "brainstorming" sessions to tackle the then current problems the group was facing accomplishing the Cortistatin A Project. He had frequent conversations with Dr. Shair and other team members to mull over problems and potential solutions the group was facing with respect to the Cortistatin A Project. He worked daily in the lab carrying out experiments to further investigate ways to find novel compounds to treat cancer. And he continually worked on his own, both in the lab and outside of it, to try to come up with unique solutions and compounds to advance the project.

42. From the conception of a broad category of Cortistatin A analogs, to the creation of numerous specific analogs, Dr. Arefolov was part of the creative team that created theoretical as well as actual Cortistatin A analogs.

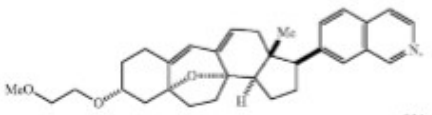
43. While many of Dr. Arefolov contributions to the Cortistatin A Project were done orally in the formal and informal day-to-day exchange that is common in a chemistry lab, many of his contributions were recorded. Dr. Arefolov kept a lab notebook detailing many of his experiments related to the Cortistatin A Project. He also kept a personal notebook where he contemporaneously recorded many of his ideas related to the Cortistatin A Project. And he sometimes emailed team members about his ideas related to the project from both his Harvard email and his personal Gmail account.

44. An example of Dr. Arefolov's contribution to the Cortistatin A Project is seen in Claim 32 of United Stated Patent Application Serial No. 15/192,629 (the "'629 Application"). (Ex. C, pg. 137.)

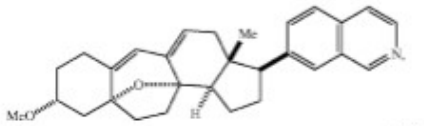
45. Claim 32 of the '629 Application reads:

32. The compound of claim **31**, wherein the compound is selected from the group consisting of:

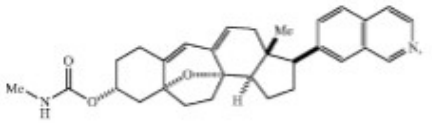
63A



64A



68A



46. Dr. Arefolov contributed to the invention of each compound listed in Claim 32 in different ways.

47. During a discussion with Dr. Shair, Dr. Arefolov suggested analog 63A, the first compound depicted in Claim 32. Dr. Arefolov suggested this compound because he had previously worked with the 2-methoxyethoxy substituent group while he was employed at Makoto and thought that the addition of this group could help with solubility and other desirable chemical properties. Dr. Shair agreed that testing this substituent group made sense.

48. Dr. Arefolov suggested the 68A compound (the third compound depicted in Claim 32) to Dr. Shair by email. (Ex. D, email A. Arefolov to M. Shair dated 6/27/2014.) In an

email, Dr. Arefolov proposed several compounds that he believed—based on his chemistry expertise—had the possibility of improved activity and solubility. One of the analogs he suggested was analog 68A. (*Id.*, compound on lower left of email attachment.)

49. Dr. Arefolov also devised the method for creating, and in fact created, analog 64A, the second compound depicted in Claim 32. On June 26, 2014, Dr. Arefolov started work on creating analog 64A and began contemporaneously recording his work in his lab notebook. On June 30, 2014, Dr. Arefolov completed his related entry in his lab notebook, and signed the bottom of the page, ensuring there is no question as to its accuracy and timeliness. (Ex. E, A. Arefolov Lab Notebook, June 26, 2014, pg. 139.)

50. While Claim 32 is a clear example of Dr. Arefolov's contributions to the Cortistatin A Project and the resultant patent(s), it is by no means exhaustive. As an integral team member of the Cortistatin A Project for four years, Dr. Arefolov was involved in almost all aspects of the project, from the broad conceptions of classes of analogs to the conception and creation of numerous other specific analogs. Four years of lab notebooks, personal journals, email correspondence, and the testimony of the scientists working on the Cortistatin A Project will bear that out.

첨부: 미국소장