



University of Illinois at Chicago

COLLEGE OF PHARMACY
Department of Medicinal Chemistry and Pharmacognosy

HEALTH SCIENCES CENTER

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August 30, 1983

Dr. Timo Koponen
Botanical Museum
University of Helsinki
Unioninkatu 44
SF-00170 Helsinki 17
FINLAND

Dear Dr. Koponen:

I am writing at this time to inform you of some good news and also some bad news. The good news is that we have been able to secure funds from the Graduate College to support the antitumor testing (\$1,000) and the collection (\$500) of plant samples of members of the family Mniaceae. Also good news is that the testing of all the samples that you have sent us has been completed. The results are enclosed for your review. As you can see, the bad news is, that none of the samples are active. (Compare with Plagiomnium venustum, the last plant in the list.)

This now brings me to my current problem concerning Plagiomnium venustum. I have been able to secure a second collection of this moss from the collectors who provided the original sample to NCI. Having seen this collection I can now, not only fully appreciate the hours of work required for the cleaning of the samples that you provided, but also realize that there is a very great chance that the activity observed with this moss may in fact be due to a mixture of plants! I know for a fact that when the original sample was extracted, the sample was ground and extracted just as it was received and therefore was probably contaminated as is the collection now sitting in my laboratory. I am now cleaning a quantity of this collection in order to prepare an extract and to evaluate it in the three cell culture assays for antitumor activity. I have enclosed for you a sample of the material (Sample A) and wonder if you would be so kind as to confirm that this is in fact Plagiomnium venustum. Dr. Soejarto has checked Sample A at the Bryophyte Herbarium of the Field Museum of Natural History and believes that it is Plagiomnium venustum. Also, I am enclosing a list of the bryophytes that the NCI has screened for antitumor activity with the hope that you may be able to supply other samples which have not been screened by NCI (possibly within the genus Trachycystis, Leucolepis or Orthomnion or even another family).

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As I have noted earlier, funds are available for the cleaning and testing of other samples. I look forward to hearing from you.

With best regards.

Sincerely,



Charles H. Phoebe, Jr., Ph.D.
Assistant Professor of Pharmacognosy

CHP/mah

cc: Dr. D.D. Soejarto
Dr. J.M. Pezzuto

Enclosures

Sample Number	Plant Name	In Vitro Test Results		
		KB ¹ (mcg/ml)	P-388 ¹ (mcg/ml)	ASK ² (% reversal)
K38153	<u>Plagiomnium ellipticum</u>	>100	>100	0
K38204	" <u>undulatum</u>	>100	38	0
K38206	" <u>medium</u>	>100	>100	0
K38237	" <u>elatum</u>	>100	53	0
K38218	" <u>cuspidatum</u>	>100	43	0
K38219	" <u>affine</u>	>100	>100	0
K38247	<u>Rhizomnium pseudopunctatum</u>	100	41	0
K38213	" <u>punctatum</u>	>100	>100	0
K38214	" <u>magnifolium</u>	>100	>100	0
K38155	<u>Cinclidium subrotundatum</u>	>100	>100	0
K38158	" <u>stygium</u>	>100	87	0
K38161	<u>Cyrtomium hymenophyllum</u>	>100	27	0
K38205	<u>Mnium stellare</u>	32	32	0
K38167	" <u>thomsonii</u>	38	>100	0
K38248	" <u>hornum</u>	>100	12/25 ³	0
K38210	<u>Pseudobryum cinclidioides</u>	>100	21/68 ³	0
CA2558	<u>Plagiomnium venustum</u>	0.5	1.5	100

¹ results considered positive for values \leq 20 mcg/ml

² results considered positive for % reversal \geq 51%

³ test duplicated, positive results did not reconfirm

PLANTS OF CALIFORNIA

Plagiomnium venustum Locality: approx. 4 miles West of Willow Creek, Humboldt County, below Hwy 299 near the stream, Willow Creek. In the Coast range just beyond the fog belt, about 1,000 ft. elev. Found on rocks, usually shaded. Predominant plants: California laurel (Umbellularia californica) with Douglas fir, live oak and madrone. A dense understory of poison oak was also present. Associated rock species include fern Polypodium glycyrrhiza and bryophytes: Anacolia menziesii, Claopodium crispifolium, Hymnum subimponens, Isothecium stonloniferum, and Metaneckera menziesii.

COLLECTOR S R. Spjut and C. Edison

NO. WBA-1

DATE JULY 9, 1983

Voucher of sample collected by WORLD BOTANICAL ASSOCIATES, P.O. BOX 2629, Laurel, Maryland, 20708.

PLANTS OF CALIFORNIA

Plagiomnium venustum: Locality: Humboldt County about 40 miles East of Eureka, T.3n. R.4E. Sec. 7. From Eastern exposure of Maple Creek (near Humbug or Bug Creek -- name varies). Found on rocks, well shaded in area approx. 3,000 sq. feet. Douglas fir forest with California buckeye (Aesculus californica) and California laurel (Umbellularia californica) at about 750 feet elev.

COLLECTORS: R. Spjut, C. Edison, J. Adams, L. McNealey

NO. WBA -2

DATE July 10, 1983

Voucher for a sample collected by WORLD BOTANICAL ASSOCIATES, P.O. BOX 2629, Laurel, Maryland, 20708

PLANTS OF

COLLECTOR

NO.

DATE

Voucher for a sample collected by WORLD BOTANICAL ASSOCIATES, P.O. BOX 2629, Laurel, Maryland, 20708