

Supplementary information

Structure and Anti-Inflammatory Activity of a New Unusual Fucosylated Chondroitin Sulfate from *Cucumaria djakonovi*

Nadezhda E. Ustyuzhanina ^{1,*}, Maria I. Bilan ¹, Elena G. Panina ², Nadezhda P. Sanamyan ², Andrey S. Dmitrenok ¹, Eugenia A. Tsvetkova ¹, Natalia A. Ushakova ³, Alexander S. Shashkov ¹, Nikolay E. Nifantiev ¹ and Anatolii I. Usov ^{1,*}

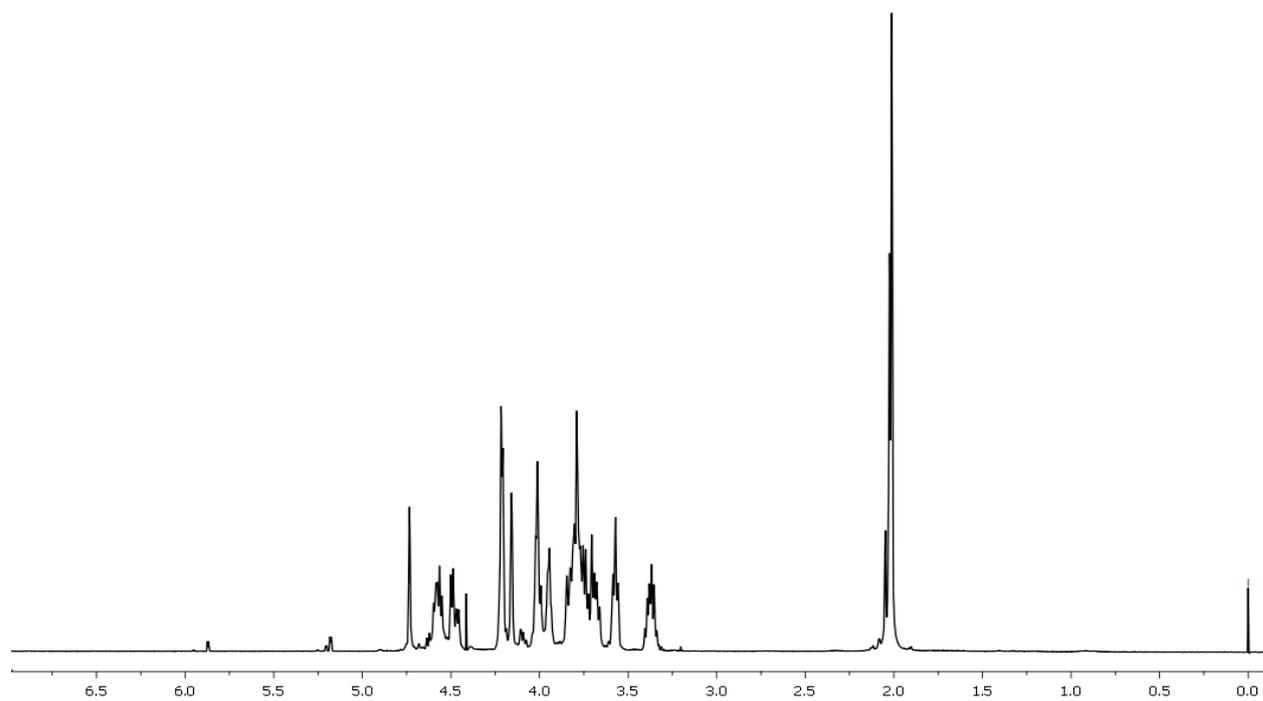
¹ N.D. Zelinsky Institute of Organic Chemistry, Russian Academy of Sciences, Leninsky prospect 47, Moscow 119991, Russia; bilan@ioc.ac.ru (M.I.B.); dmt@ioc.ac.ru (A.S.D.); e_tsvet@ioc.ac.ru (E.A.T.); shash@ioc.ac.ru (A.S.S.); nen@ioc.ac.ru (N.E.N.)

² Kamchatka Branch of Pacific Geographical Institute FEB RAS, Russian Academy of Sciences, Petropavlovsk-Kamchatsky 683000, Russia; panina1968@mail.ru (E.G.P.); actinaria@sanamyan.com (N.P.S.)

³ V.N. Orekhovich Research Institute of Biomedical Chemistry, Pogodinskaya str. 10, Moscow 119121, Russia; natalia.ushakova@ibmc.msk.ru

* Correspondence: ustnad@gmail.com (N.E.U.); usov@ioc.ac.ru (A.I.U.); Tel.: +7-495-135-8784 (N.E.U.)

A



B

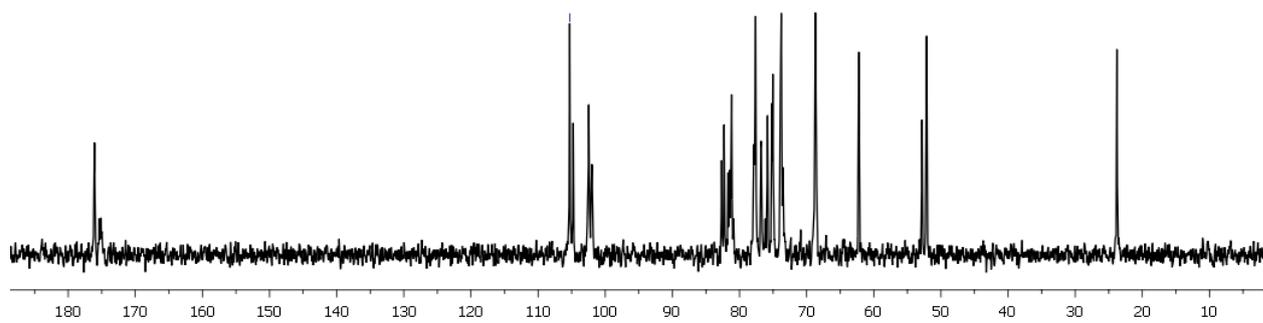


Figure S1. The ^1H NMR (A) and ^{13}C NMR (B) spectra of chondroitin sulfate SS.

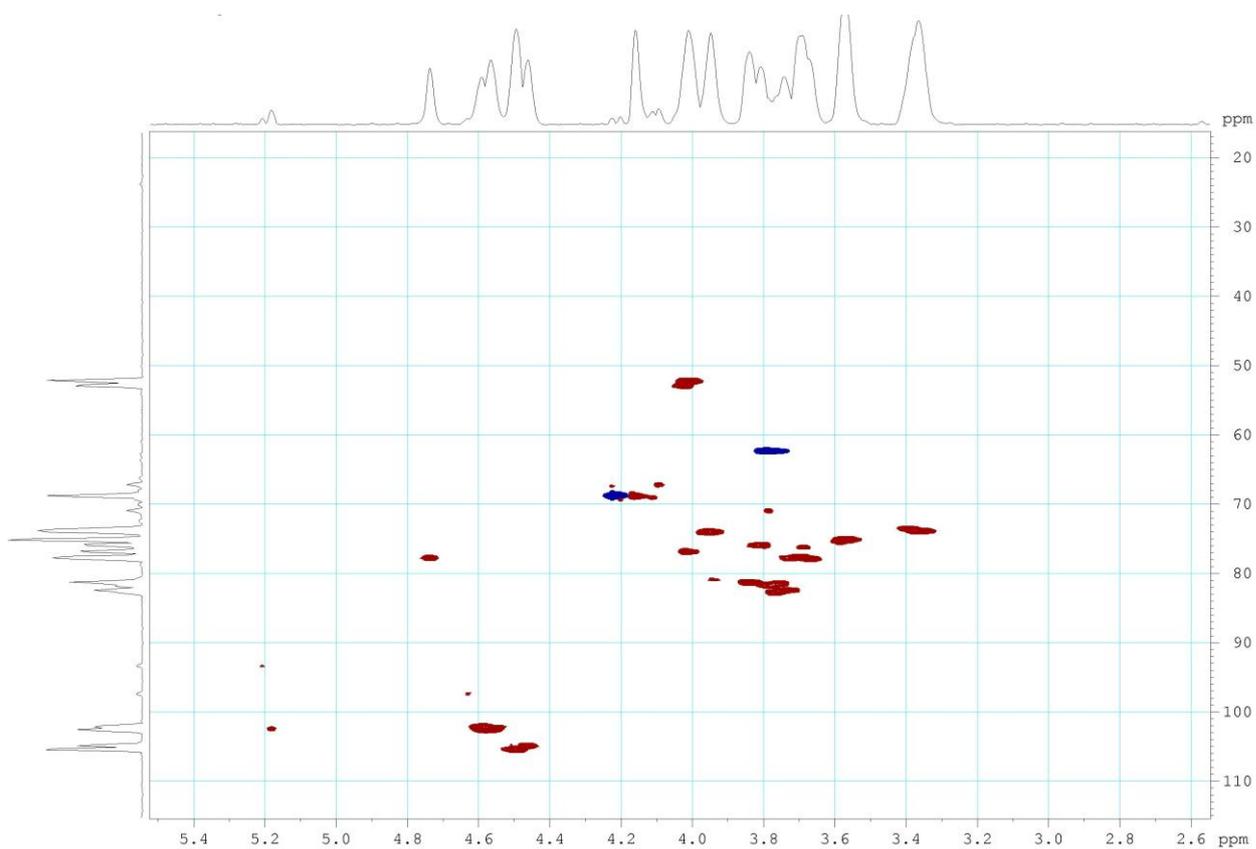


Figure S2. The ^1H - ^{13}C HSQC NMR spectrum of chondroitin sulfate SS.

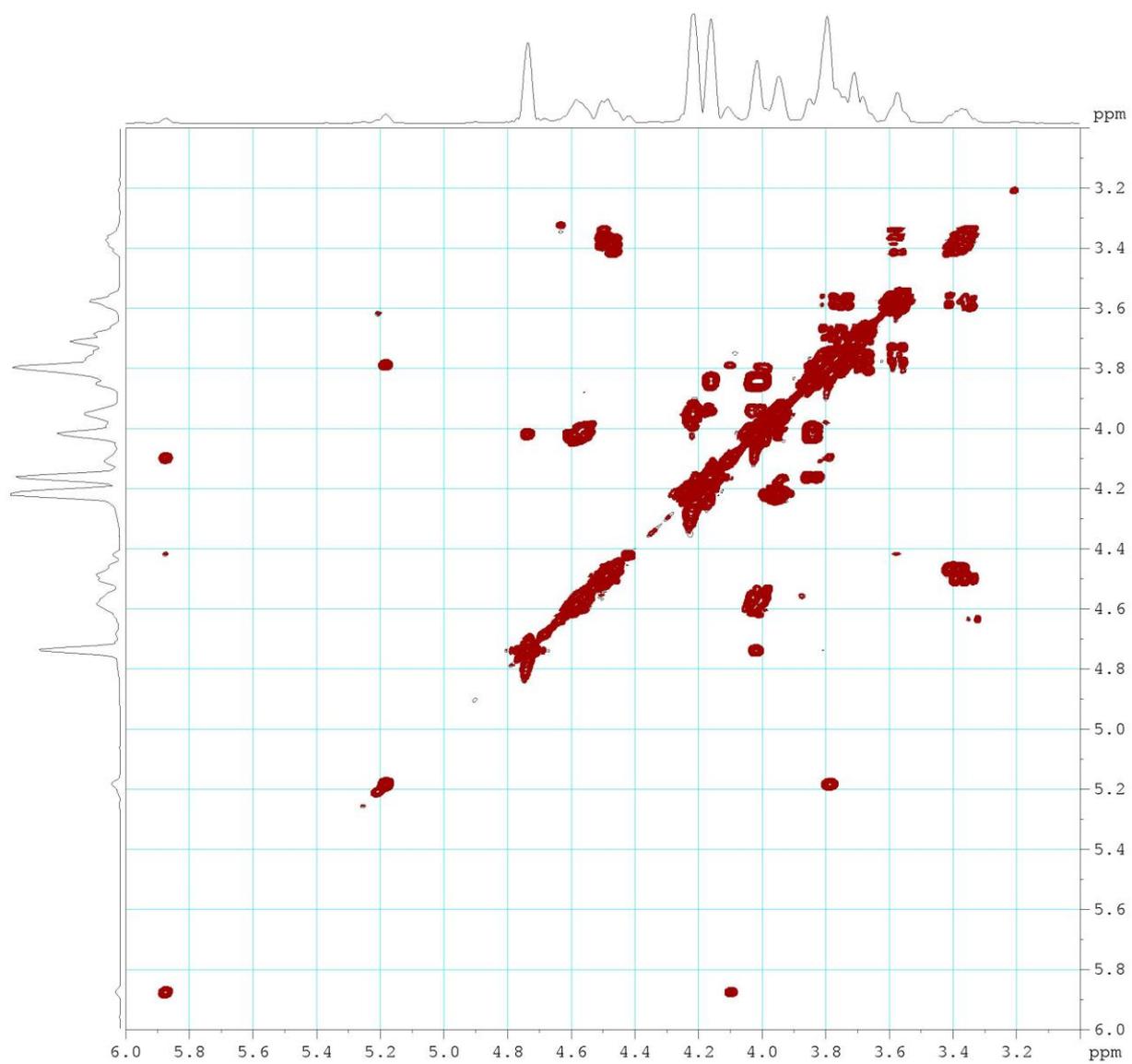
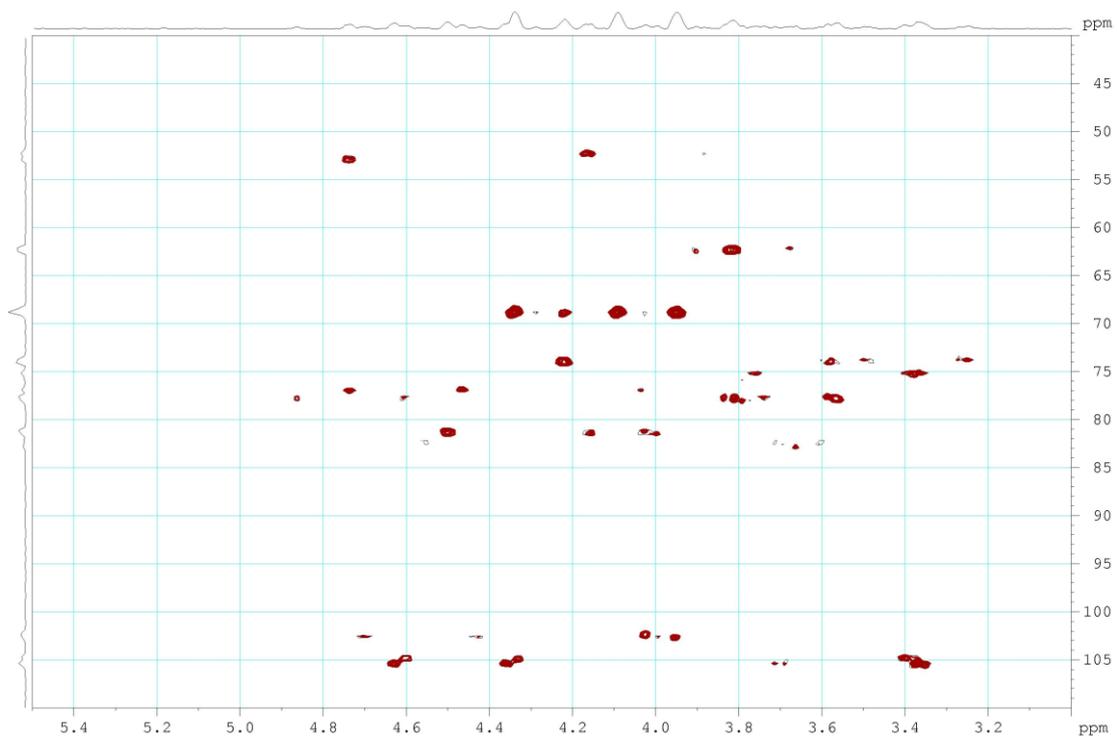


Figure S3. The ^1H - ^1H COSY NMR spectrum of chondroitin sulfate SS.

A



B

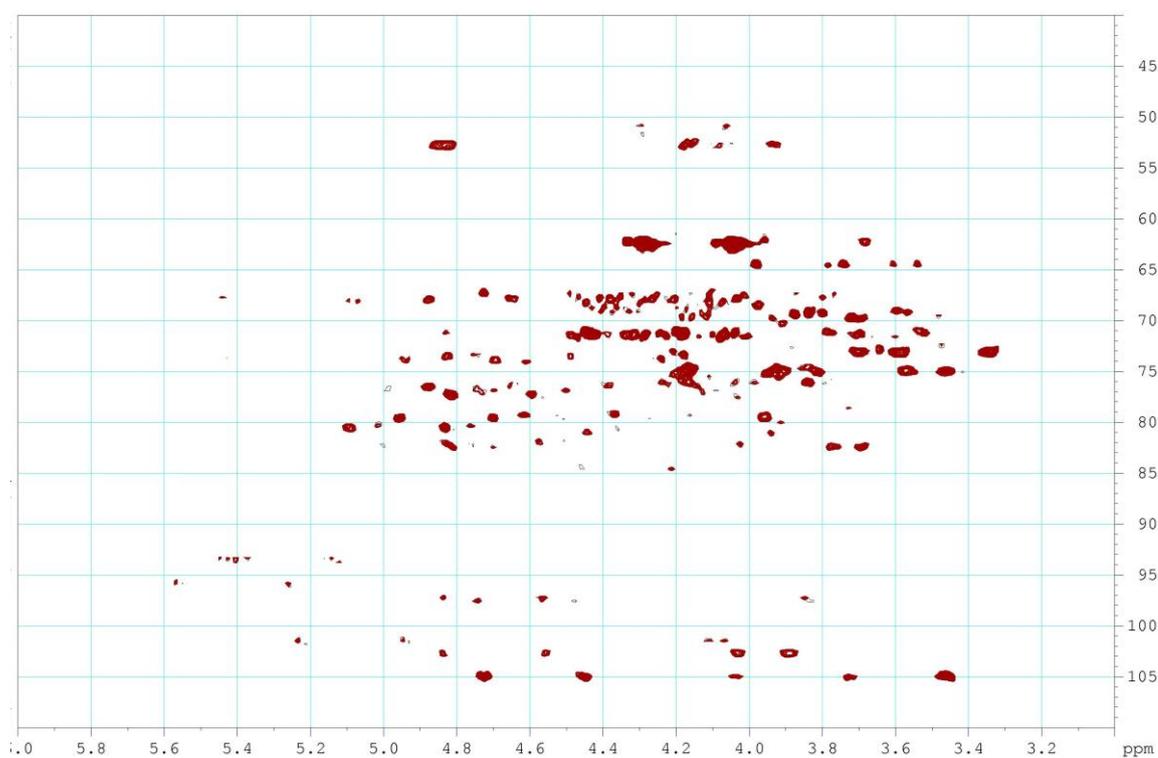


Figure S4. The HMBC spectra of chondroitin sulfate SS (A) and fucosylated chondroitin sulfate CD (B).

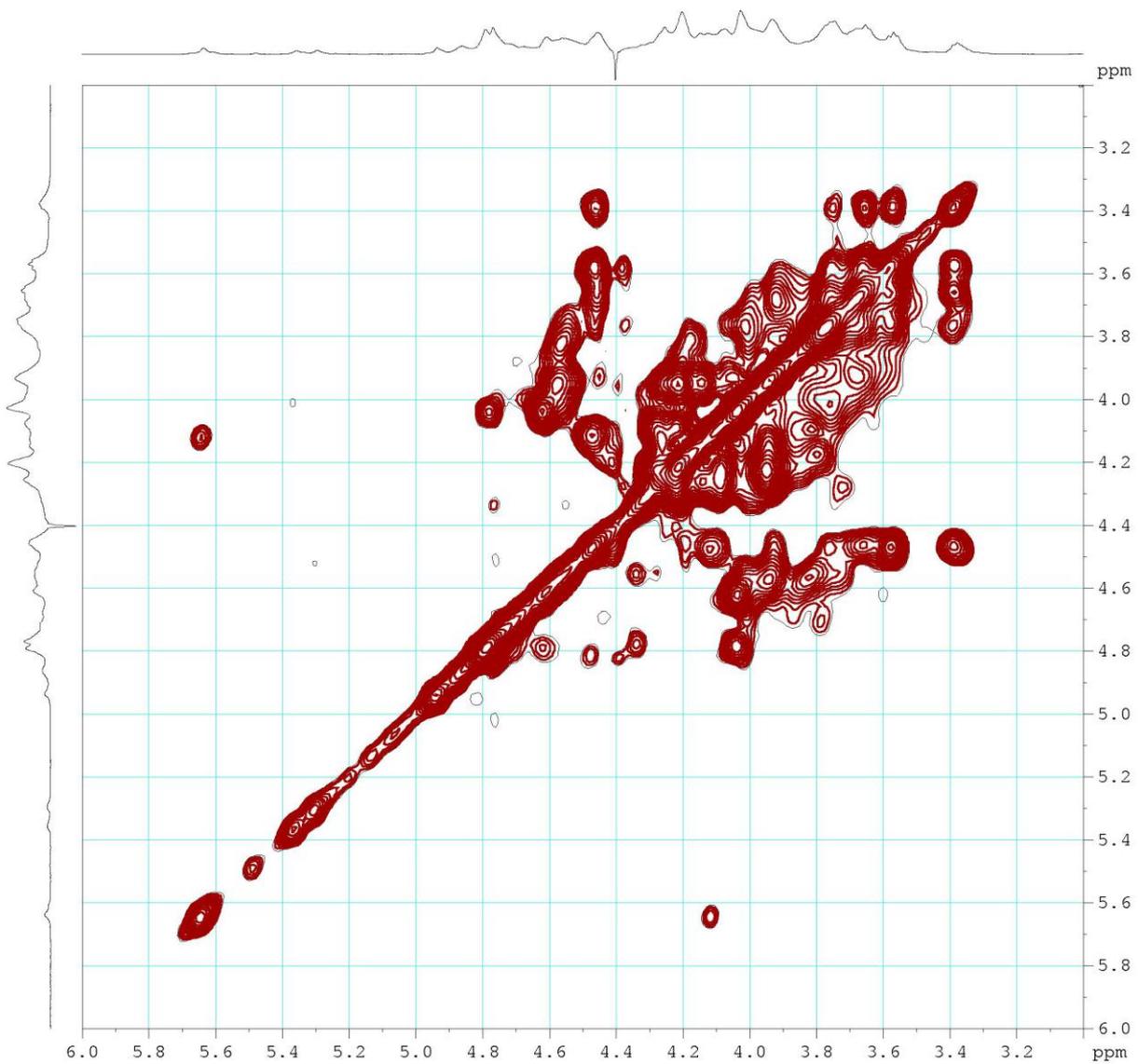


Figure S5. The ^1H - ^1H TOCSY spectrum of fucosylated chondroitin sulfate CD.