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Okan Gurel* (protein@attglobal.net), 630 First Avenue, New York, NY 10016, and **Demet Gurel**, Chemistry and Physics, 27 West 23rd Street, New York, NY 10010. *Biotopology and Chirality in Proteins*. Preliminary report.

Biotopology will be defined as the field to study biological macromolecules and their functional properties by identifying the topological invariants at molecular and higher structural levels. Biotopological space of proteins is defined as a hyperbolic 2D surface with Pauling triangle as its simplex and Pauling hexagon, a Gauss Unit (GU) as its expansion, [1]. Topological mechanics was introduced to analyze the dynamics of this space, [1]. Applications were illustrated, [2,3]. Information packets in GUs are expressed as triangular GUs, [4]. Chirality as an invariant of biotopological space is expressed by triangular GUs forming Pasteur triangles. We identify that wild type and mutated isomers of proteins exhibit alterations in chirality of Pasteur triangles. [1] O Gurel, D Gurel, 104th Ann Mtg AMS, Baltimore, MD (1998) Abstracts v19 n1 (111)108 (930-54-1115) [2] —, —, 105th Ann Mtg AMS, San Antonio, TX (1999) Abstracts v20 n1 (115)130 (936-58-1089) [3] —, —, Amer Chem Soc 218th Nat Mtg, New Orleans LA (1999) Polymer Preprints (1999)40(2)1146 [3] D Gurel, O Gurel, ACS 219th Nat Mtg, San Francisco CA (2000) Polymer Preprints (2000)41(1)279 (Received October 03, 2000)