

Unerkannte Paradigmenwechsel

Aktuelle Forschungspraxis erdacht vor 2000, 300 und
50 Jahren.

HBSP & SGGP, Bern, 12. Nov. 2022

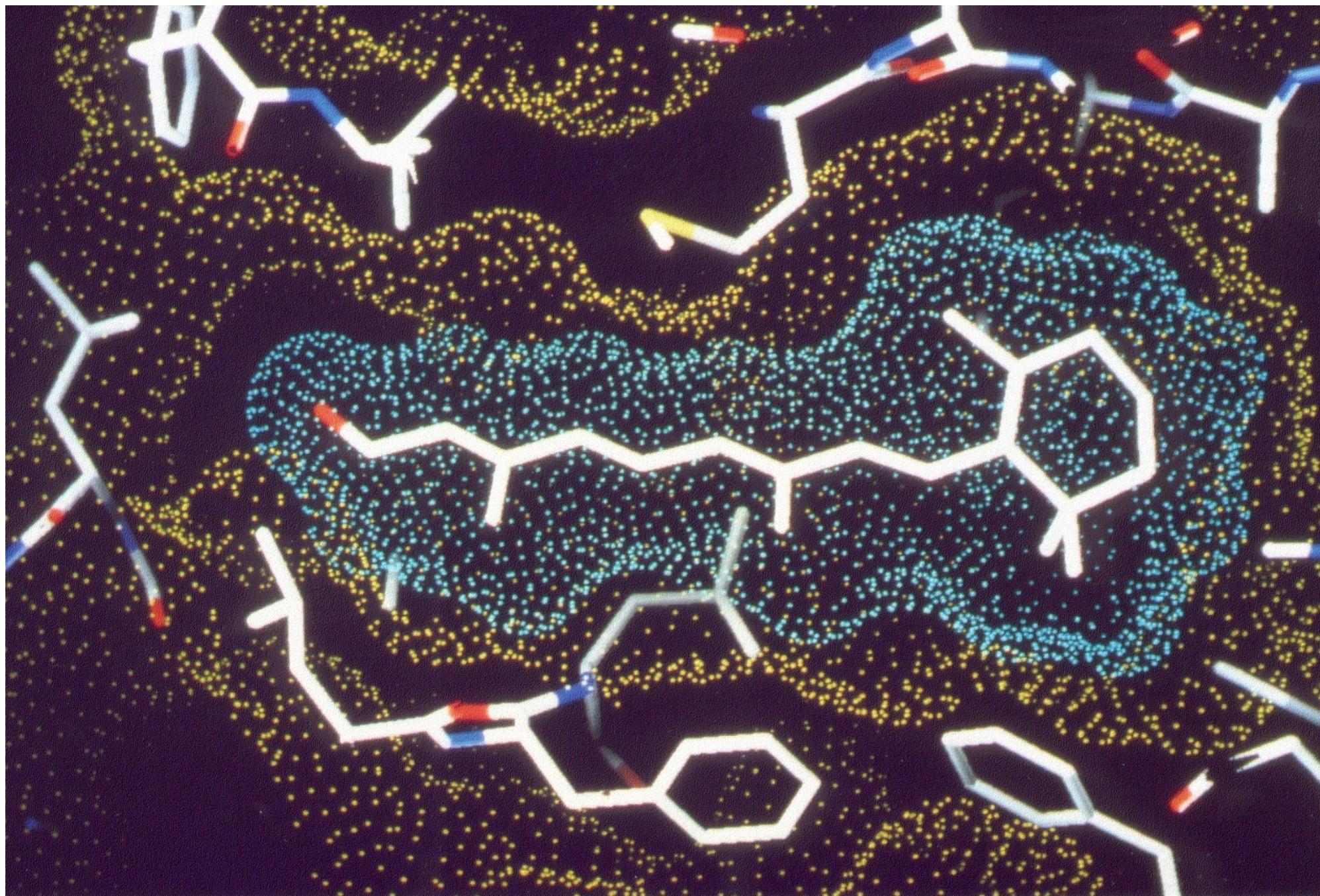
Gerd Folkers, Zürich



Schlüssel und Schloss

"Um ein Bild zu gebrauchen, will ich sagen, dass Enzym und Glucosid wie Schloss und Schlüssel zueinander passen müssen, um eine chemische Wirkung aufeinander ausüben zu können."

Emil Fischer 1894

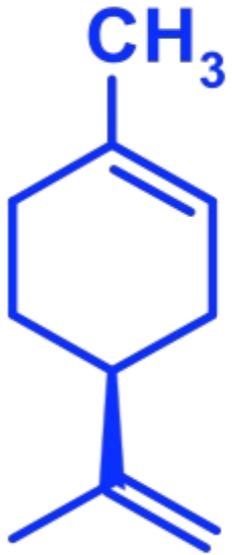


VITAMIN A



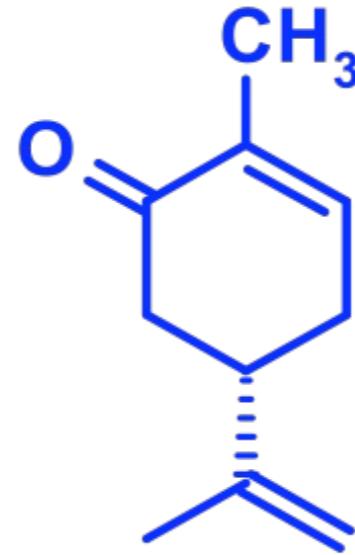
**(R)-(+)-
Limonen**

**Geruch:
Orange**



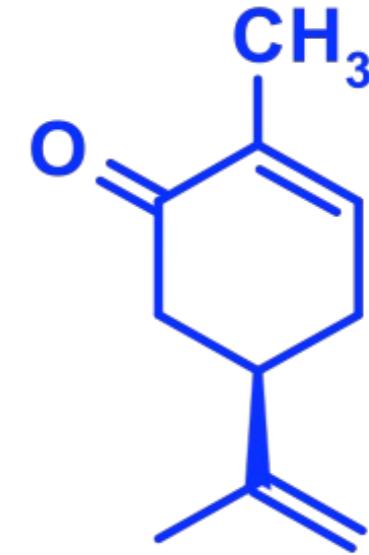
(S)-(-)-

Zitrone



**(S)-(+)-
Carvon**

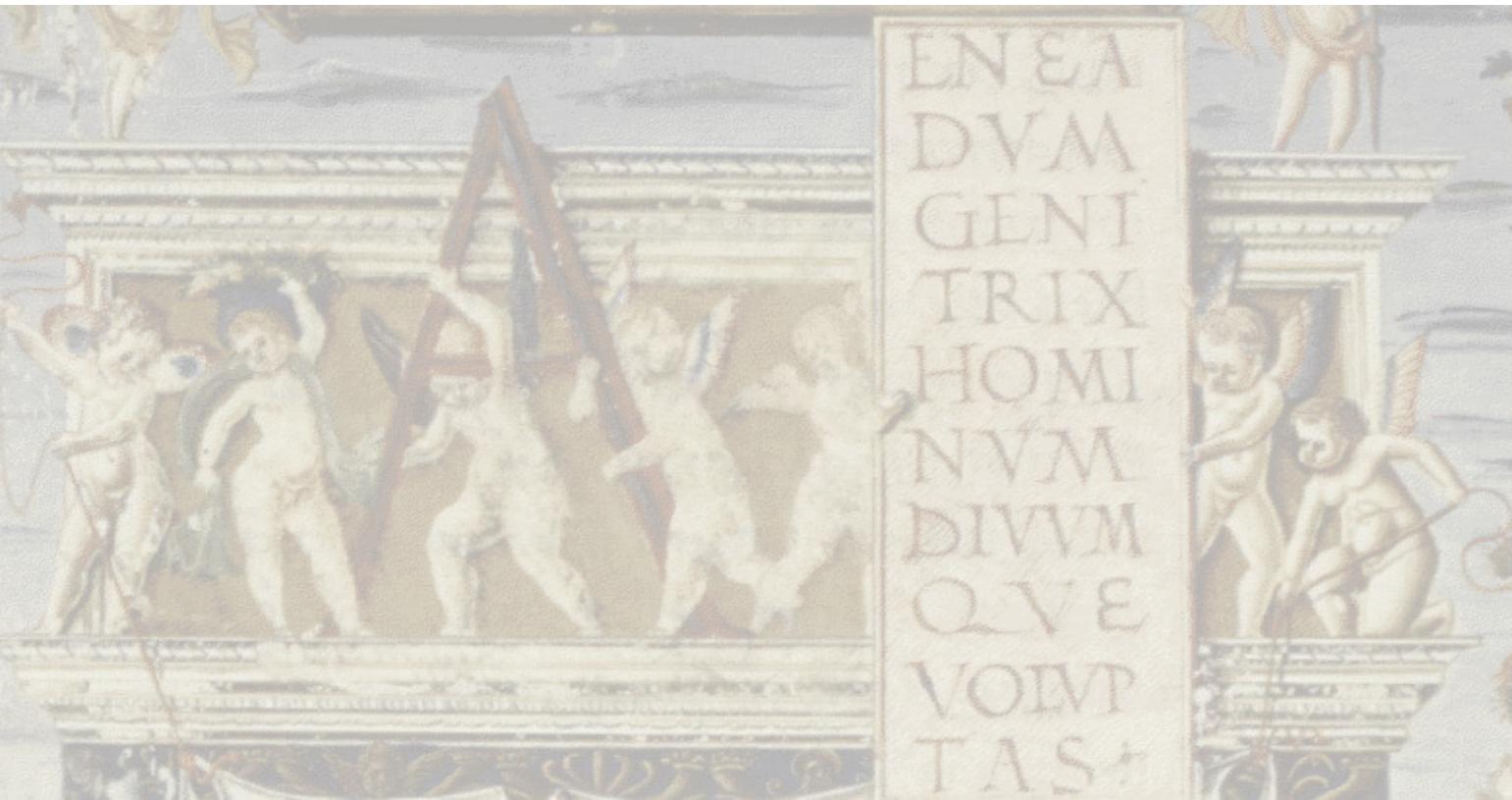
Kümmel



(R)-(-)-

Pfefferminze

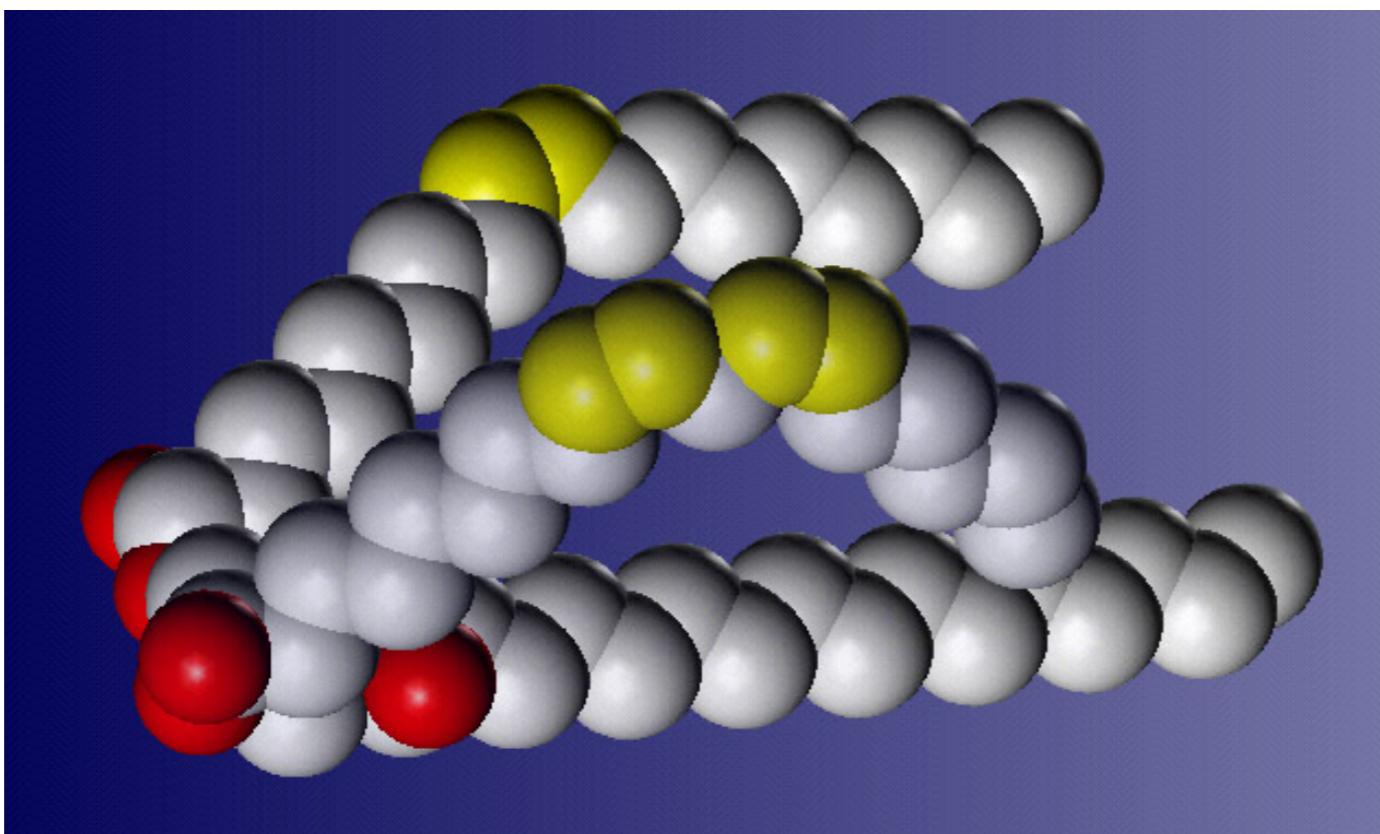
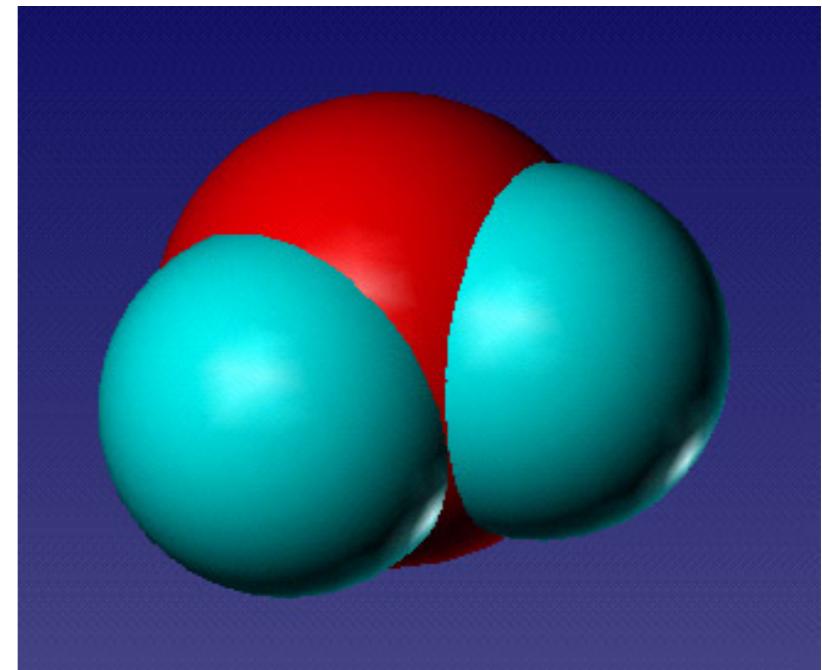
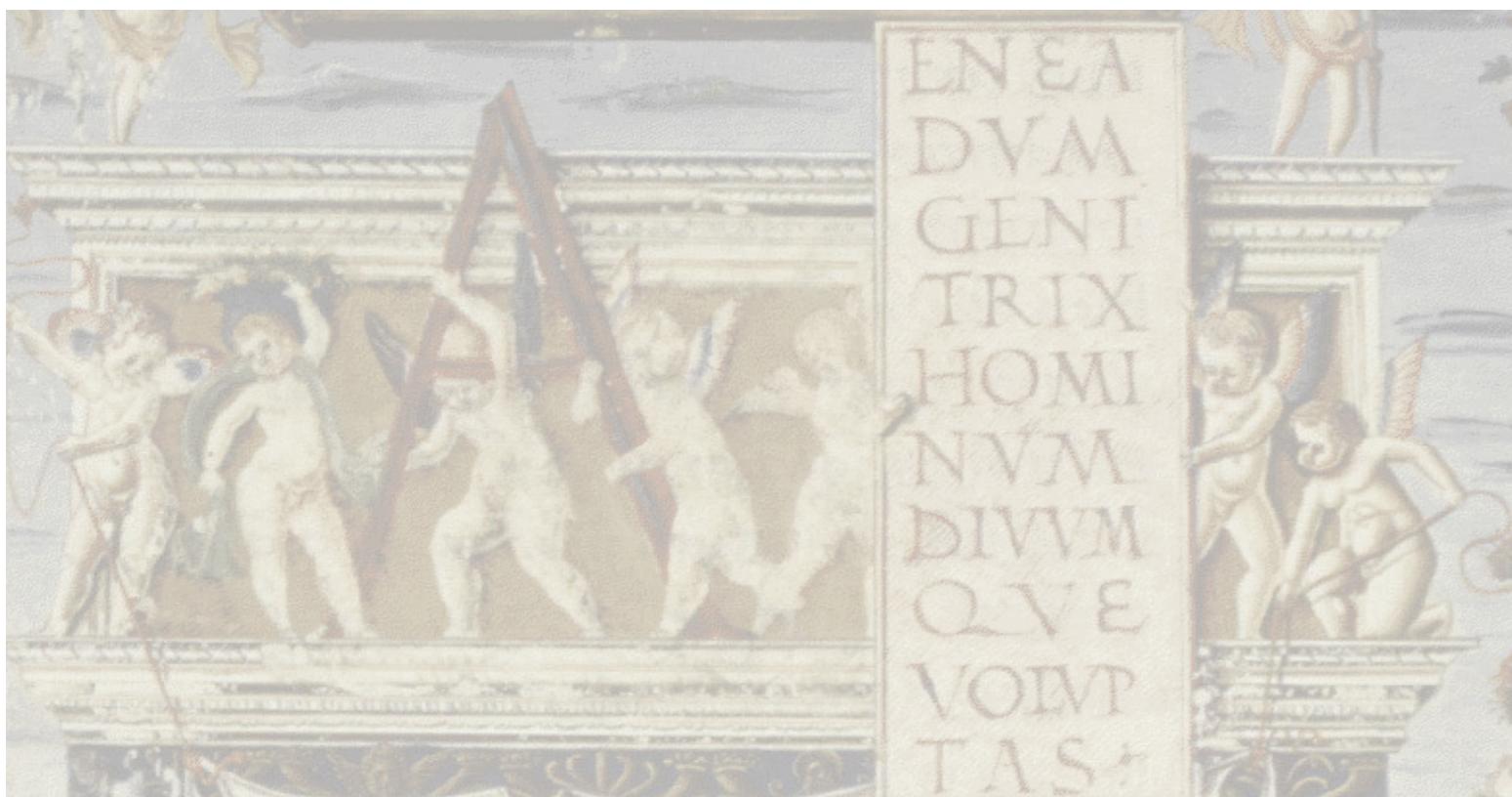




*„...oder warum fliesst wunderbar rasch durch
die Seihe der Wein ab, aber das Baumöl tropft
nur zaudernd hinab in die Kufe ?“*

*„Offenbar bildet sich Öl aus grösseren
Urelementen oder sie sind auch verhäkelt und
mehr miteinander verflochten...“*

De rerum natura, Titus Lukretius Carus, 60 v.Chr.





TRAVELS
INTO SEVERAL
Remote Nations
OF THE
WORLD.

IN FOUR PARTS.

By *LEMUEL GULLIVER*,
first a SURGEON, and then a CAPTAIN
of several SHIPS.

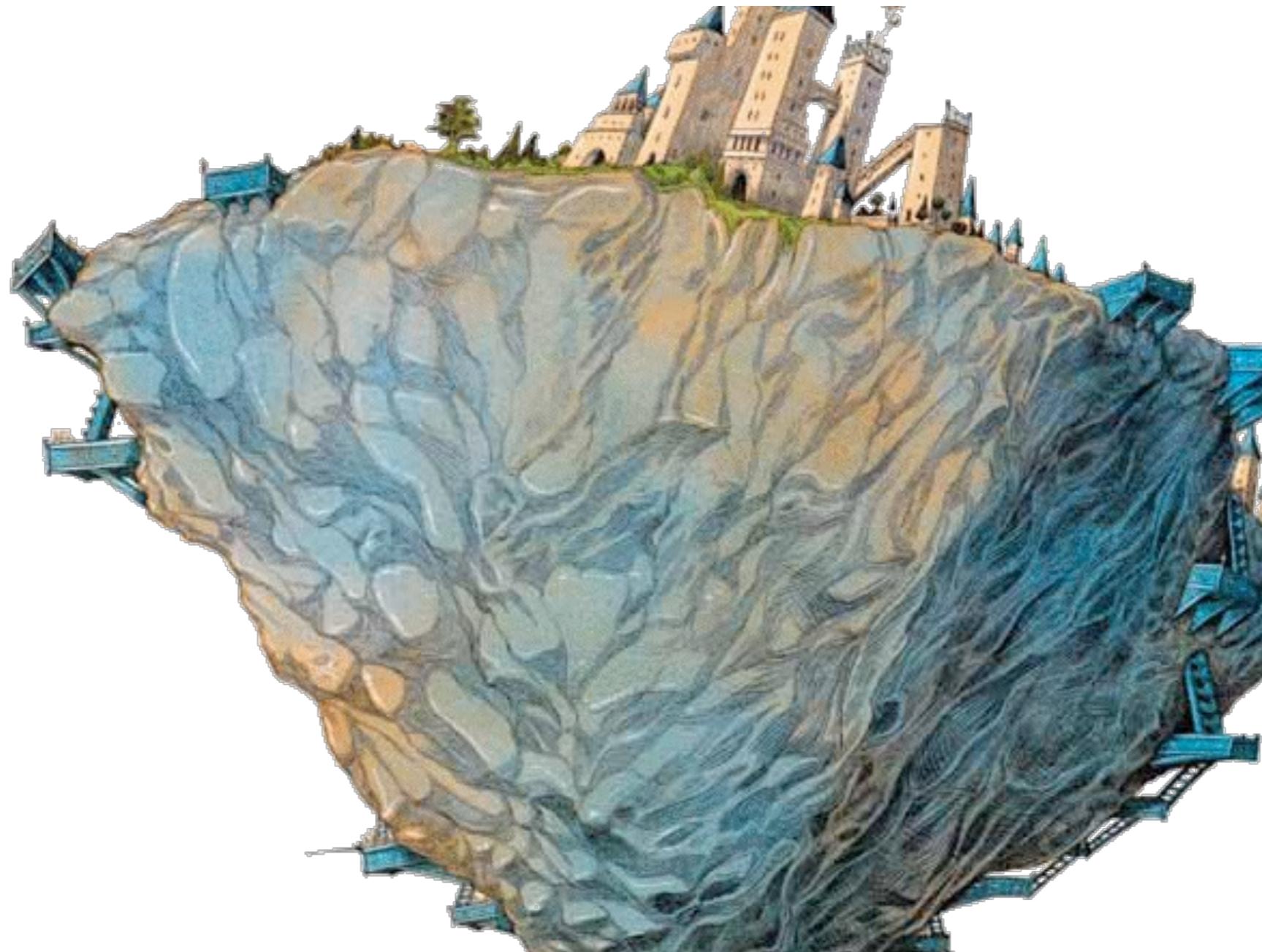
VOL. I.

LONDON:

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Temple-Gate in Fleet-street.
M, DCC, XXVI.

*Compositum ius, siveque animi, sancto sive recessu
- Hoc est, et incertum generis, pectus honesto.*

Reise nach Laputa, Balnibarbi, Luggnagg, Glubbdubdrib und J



Vorsicht: Satire!

The Academy of Projectors at Lagado

“... Every one knew how laborious the usual method is of attaining to arts and sciences; whereas, by his contrivance, the most ignorant person, at a reasonable charge, and with a little bodily labour, might write books in philosophy, poetry, politics, laws, mathematics, and theology, without the least assistance from genius or study.” He then led me to the frame, about the sides, whereof all his pupils stood in ranks. It was twenty feet square, placed in the middle of the room. The surfaces was composed of several bits of wood, about the bigness of a die, but some larger than others. They were all linked together by slender wires. These bits of wood were covered, on every square, with paper pasted on them; and on these papers were written all the words of their language, in their several moods, tenses, and declensions; but without any order. The professor then desired me “to observe; for he was going to set his engine at work.” The pupils, at his command, took each of them hold of an iron handle, whereof there were forty fixed round the edges of the frame; and giving them a sudden turn, the whole disposition of the words was entirely changed. He then commanded six-and-thirty of the lads, to read the several lines softly, as they appeared upon the frame; and where they found three or four words together that might make part of a sentence, they dictated to the four remaining boys, who were scribes. This work was repeated three or four times, and at every turn, the engine was so contrived, that the words shifted into new places, as the square bits of wood moved upside down.”



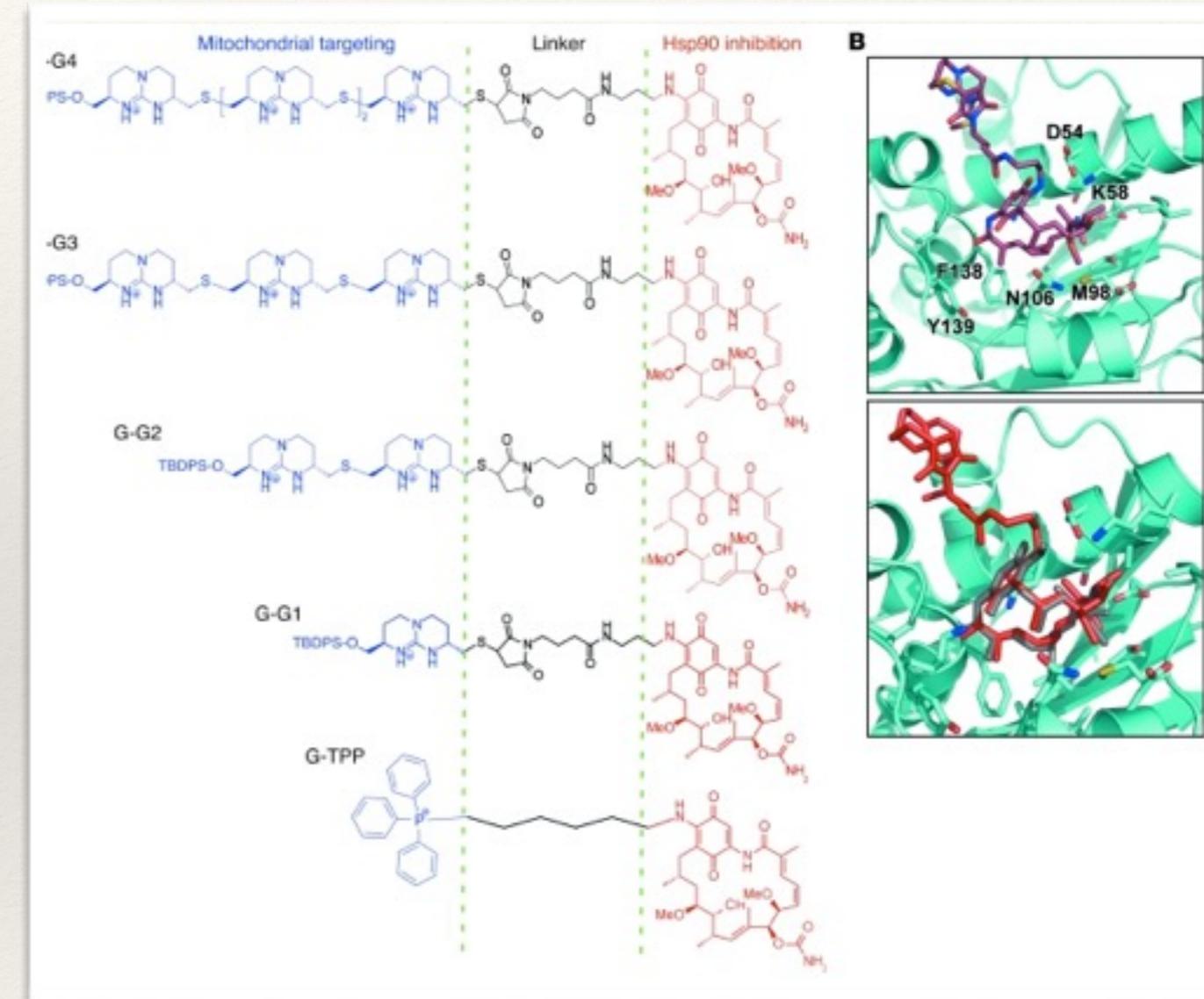


Vorsicht: Realität!

J Clin Invest. 2009 Mar 2; 119(3): 454–464.

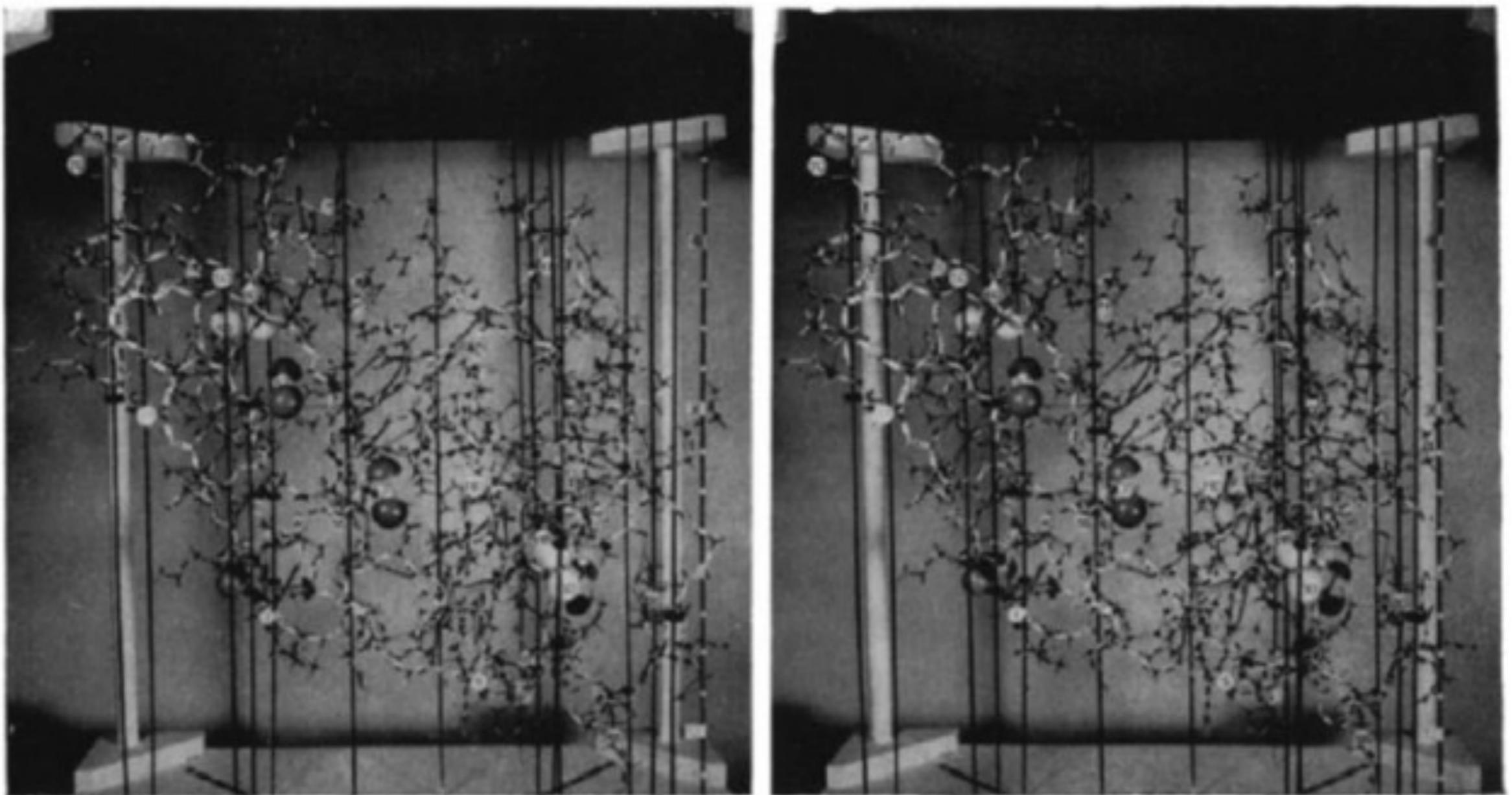
Structure of Gamitrinibs.

(A) Combinatorial modular design. The indicated individual modules of Gamitrinibs (mitochondrial targeting, linker, and Hsp90 inhibition) are indicated. G-G1, Gamitrinib-G1; G-TPP, Gamitrinib-TPP-OH; TBDPS, tert-butyldiphenylsilyl. (B) A 3D docking model of Gamitrinib-G1 with Hsp90 N-domain (top panel). The side chains of contact sites are labeled and in color. An overlay of Gamitrinib-G1 (red) and GA (gray) in the ATPase pocket of Hsp90 (bottom panel).



DICKERSON AND GEIS
THE STRUCTURE AND ACTION OF
PROTEINS





Stereo photographs of an atomic model of the hen egg-white lysozyme molecule. Figure reproduced from [North and Phillips \(1969\)](#).

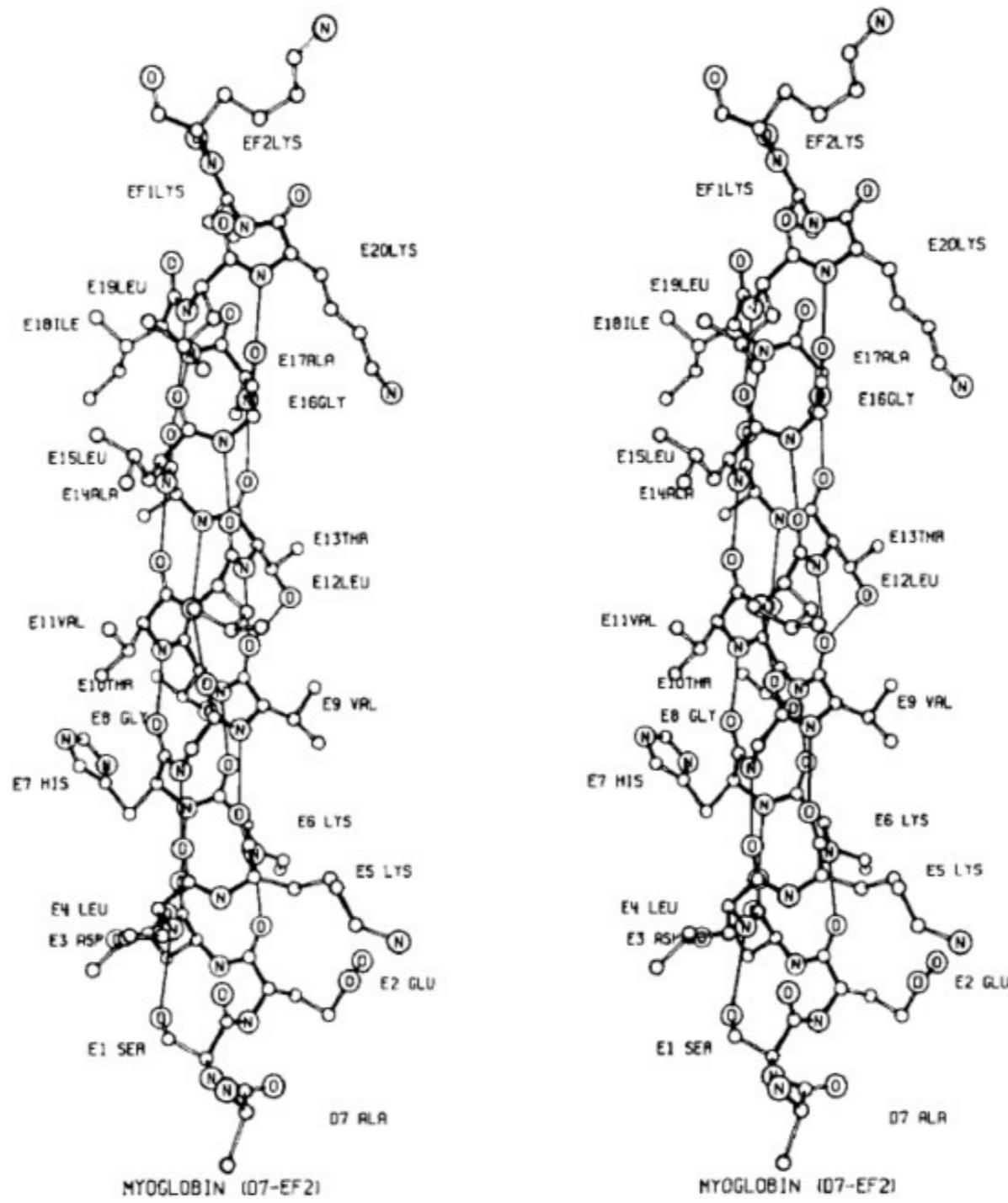
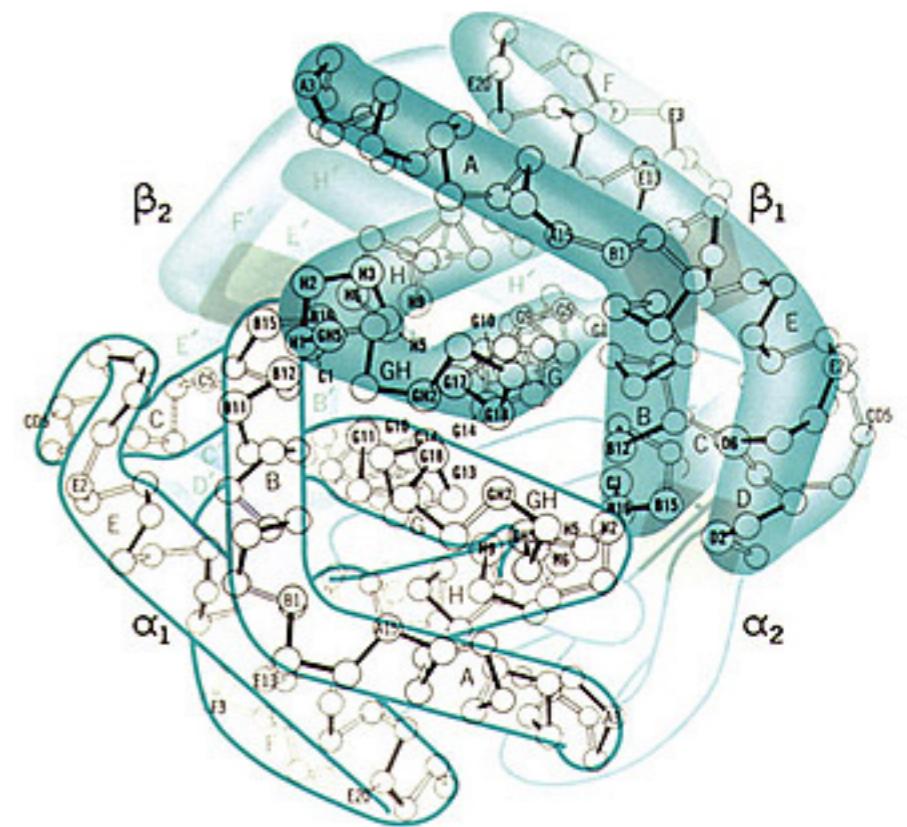
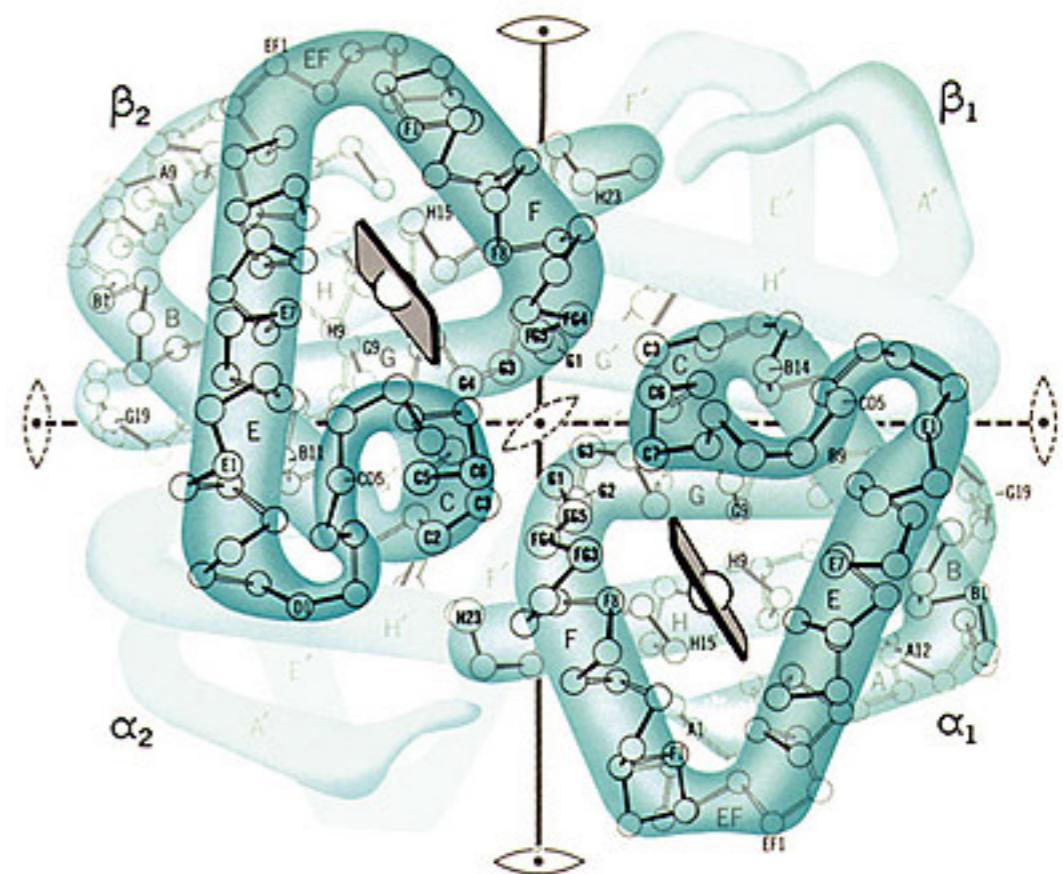
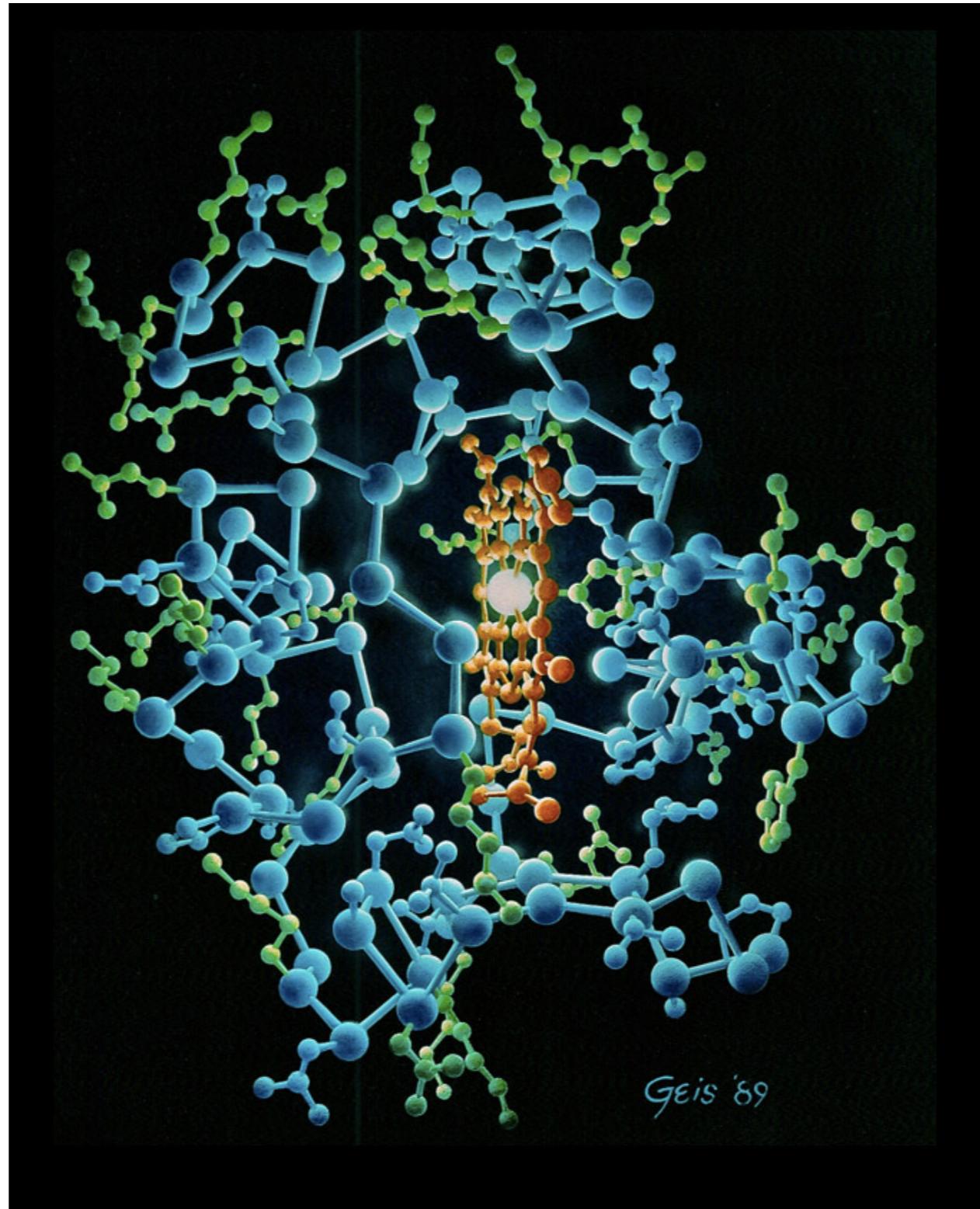
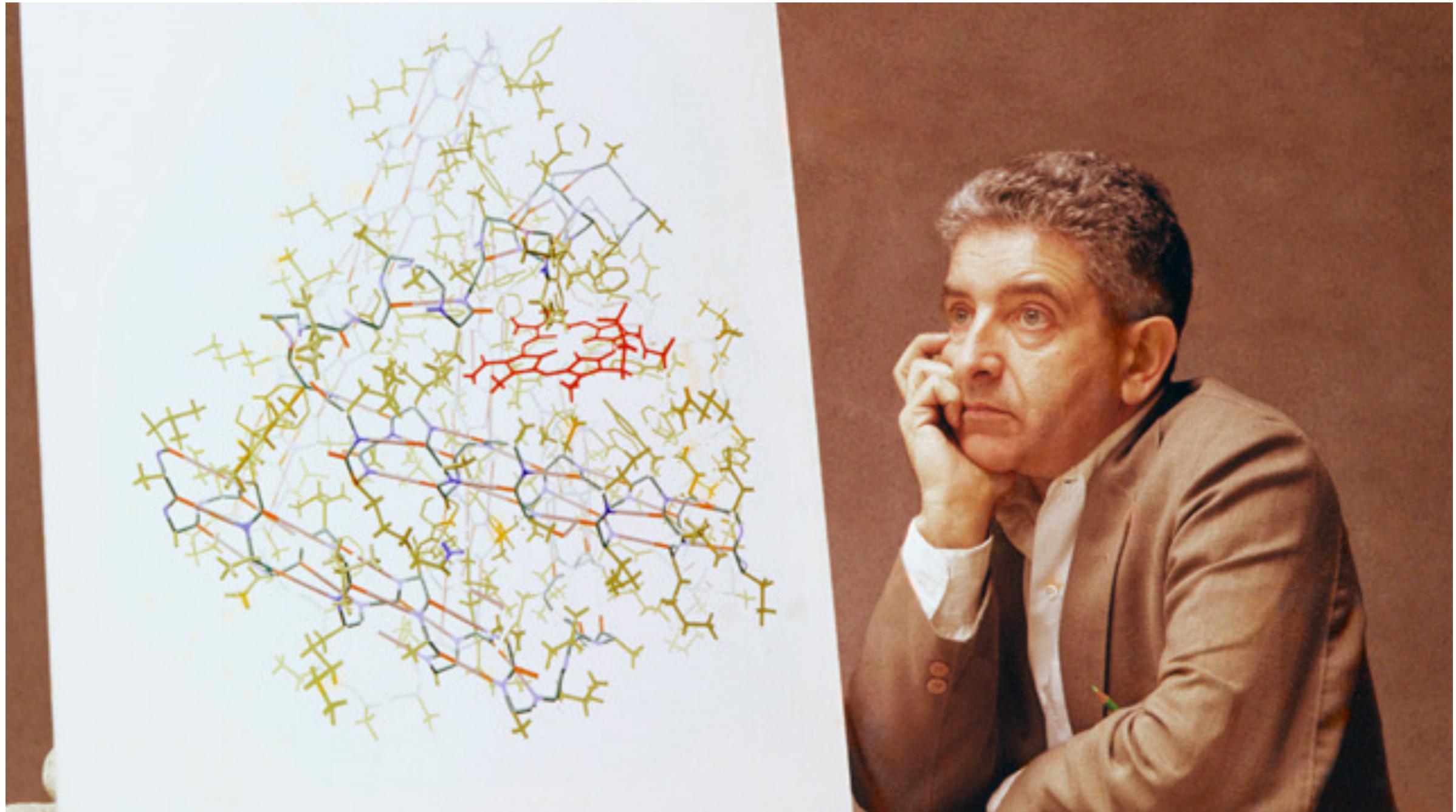


Fig. 3. Stereogram of the E-helix of myoglobin (Kendrew et al., 1960), reproduced from Davies (1965).





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"Irving Geis and his work-in-progress 1961 myoglobin painting" from the Irving Geis Collection. Rights owned and administered by the Howard Hughes Medical Institute. Reproduction by p