

Erasistratus fr. 76 Garofalo = Anonymous Londinensis 33.44-51 Diels trans. Berrey

"Erasistratus too tried to prove the proposition [sc. that there are emanations ἀποφοραί from animals]. For if one were to take an animal (a bird or something like it) and were to set it down in a cauldron for some period of time without giving it food, and then were to weigh it along with the excreta that visibly had been passed, one will find that it is far less in weight because obviously a considerable emanation has taken place, perceptible only to reason."

Erasistratus fr. 201 Garofalo = Galen *On the Doctrines of Hippocrates and Plato* 396.3-33 De Lacy trans. De Lacy

"The view has been recorded by Erasistratus in his treatise *On Fevers*, that there are membranes attached to the mouth of the vessels used by the heart for bringing matter in and sending it out again. Some dared to say that these membranes do not exist, and that the account was interpolated by a follower of Erasistratus in order to support a view; yet they have come to be so well known to all physicians that anyone who does not recognize them would appear to be really ancient. At the mouth of the vena cava there are three membranes, very similar in arrangement to the barbs of arrows; and for that reason, I believe, some of the Erasistrateans called them three-barbed (i.e. tricuspid). Those of the venous artery -- I give this name to the vessel that comes from the left ventricle of the heart and divides into branches that go to the lungs -- are very similar in form but not equal in number; for this mouth alone has two membranes attached to it. Each of the other two has three, all of them crescent-shaped. According to Erasistratus' explanation of this observation, each of these others is an exit, one of them carrying blood to the lungs, the other, pneuma to the whole body. The use of the membrane, as he thinks, is to provide to the heart opposite services, which alternate at suitable intervals of time. The membranes attached to the vessels that bring matter into the heart move from the outside in and are overcome by the influx of matter; and as they fall back they open the entrances to the cavities of the heart and allow unobstructed movement to the matter that is being drawn to the heart. For he says that matter does not flow in of its accord as into some lifeless receptacle, but the heart itself expands like blacksmith's bellows and draws it in, filling itself by the expansion. And he said that there are other membranes attached to the vessels that carry the matter out; these, he thought, experience the opposite movement, for they slant outward from the inside, and when they are overwhelmed by the departing matter, they open the passage for as long as the heart is supplying the matter; but the rest of the time they hold the orifices tightly shut, permitting nothing that has been sent out to reenter. In the same way he says the membranes attached to the inducting vessels close the orifices when the heart contracts, and they let none of the matter pulled in by the heart run back out again."