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**Abstract:** In his 1970s work *Chance and Necessity*, Jacques Monod provided an explanatory framework not only for the biological evolution of species, but, as has become recently apparent, for the evolutionary development of cancers. That is, contemporary oncological research has demonstrated that cancer is an evolutionary disease that develops according to the same dynamics of chance (that is, random occurrences) and necessity (that is, law-like regularities) at work in all evolutionary phenomena. And just as various challenges are raised for religious thought by the operations of chance and necessity within biological evolution, so this particular theological question is raised by the findings of contemporary cancer science: Where is love, divine and human, within the evolutionary chance and necessity operative in all dimensions of cancer? In this article, we contribute to the dialogue in science and religion by offering the following responses to this question: (1) the thought of Arthur Peacocke to claim that divine love may be understood to be at work in, with, and under our very efforts to make theological meaning of the chance and necessity that inform the evolution of cancers; and (2) Charles Sanders Peirce's evolutionary philosophy to make this claim: that the work of scientific communities of inquiry to understand and to find better ways to cope with the disease of cancer is itself the work of divine love amid the chance and necessity of cancer.

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