

we can realise or imagine. And thirdly, hand in hand with the conviction of this unique but ubiquitous character of life, the impression of the mutual interdependence of living creatures has gained ground, and has especially influenced our ideas of the cause and treatment of disease.

In one of those luminous addresses in which he has rivalled the combination of literary with scientific clearness characteristic of the French genius, the late Prof. Huxley has written the history of Biogenesis¹ —*i.e.*, of the theories of the origin of life from the time of the Italian Redi down to Pasteur, showing how experiment and theory alternately supported and contradicted the doctrine that living matter could be formed out of not-living matter, till the great French biologist, by his refined experiments, entirely banished from the provinces of science and practice the once admitted fact that, after exclusion or destruction of all living germs, phenomena peculiar to life, such as fermentation and putrefaction, could be generated. Those great departments of medical practice, the anti-septic and aseptic treatment, with their enormous development of prophylactic and antitoxic methods, form the daily and ever-growing argument against abiogenesis

49.
Biogenesis.

¹ In his presidential address to the British Association in 1870, reprinted in 'Critiques and Addresses,' p. 218 *sqq.* A very readable and much earlier deliverance on "The Diffusion of Life" is that by K. E. von Baer, before the Academy of St Petersburg in 1838, reprinted in the first volume of his 'Reden,' &c., p. 161 *sqq.* In the preface of 1864 to this reprint, the illustrious author tells us that between 1810 and 1830

there were probably few naturalists who "did not consider the generation without parents of inferior organisms as proved, or at least as highly probable," and he himself would not at that time (1838) "declare it to be non-existent" (p. 173). In 1864 he describes the theory as having almost vanished, leaving the problem of the first beginnings of life in the numberless varieties, even after Darwin's hypothesis, unsolved (p. 177).