
From Embryology to Developmental Biology: The Diversification of a Biological Field.

Michael Dietrich*¹ and Nathan Crowe*²

¹Dartmouth College (Dartmouth) – 78 College St., Dartmouth, Hanover, NH 03755, United States

²Arizona State University (ASU) – United States

Abstract

Embryology and Developmental Biology: Is there a difference between the two? Developmental biology gives the impression of encompassing more than simply the study of embryos; however many problems such as limb regeneration have been studied by embryologists for decades before the term developmental biology became fashionable in the 1950s. Historians Tim Horder and Paul Weindling propose that around the time of the Second World War the study of development underwent a transformative change from a narrow set of issues associated with embryogenesis and experimental embryology to a much more diverse set of topics and issues associated with process of development and so called developmental biology. Richard Burian and Denis Thieffry described the transition in terms of the integration of molecular biology into the traditional study of embryos. Jane Oppenheimer rooted this transformation in late 1930s, where Donald Brown claims that developmental biology was an "intellectual backwater" until the full integration of molecular biology in the 1980s. We seek to paint a new picture of the transition of embryology into developmental biology with a much broader canvas. Using the surveys of worldwide embryological research conducted for the General Embryological Information Service from 1950 to 1963, we will provide a description of the how topics of research identified as embryology and developmental biology by practitioners in the field changed in the post-war period.

*Speaker