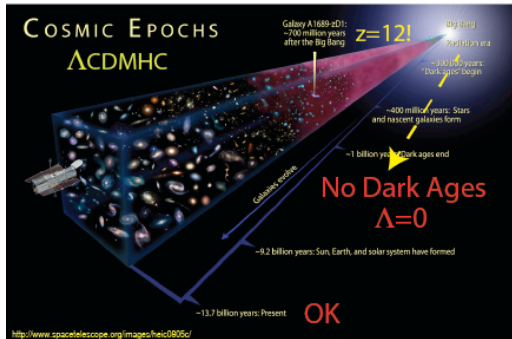


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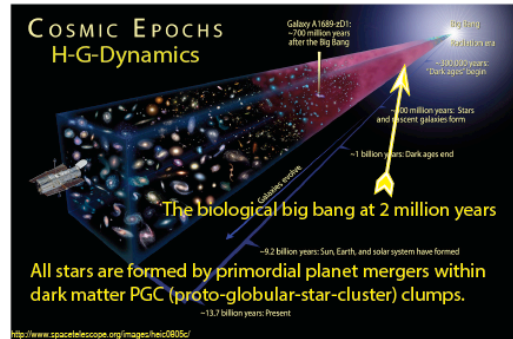
Carl H. Gibson, Senior Executive Editor, Journal of Cosmology

Old Cosmology (Λ CDMHC)



Fully formed galaxies have now been detected at red shift $z=12$, contradicting the Old Cosmology claim that first stars formed hundreds of millions of years after the big bang.

New Cosmology (Hydro-Gravitational-Dynamics)



Planets in clumps, stars and stardust form at 300,000 years: Oceans and life appear at 2,000,000 years in hot gas planets when water condenses. No dark ages, no dark energy.

These images reflect the profound differences between cosmic epochs of concordance cosmology (Λ CDMHC) and Gibson-Schild (1996) hydrogravitational dynamics (HGD) cosmology, the theme of Volume 22. The most important difference is the timeline for star and planet formation and the consequences for the formation of life. The cosmic epochs of Λ CDMHC are shown on the left (from NASA), and are in conflict with a variety of observations. The most important is the very early formation of planets and stars in clusters of protogalaxies predicted by HGD cosmology, shown on the right, which permits life formation to occur throughout the cosmos starting at 2 million years. HGD provides the physical basis for the Hoyle-Wickramasinghe concepts of cometary panspermia.

A remarkable series of meteorites in Sri Lanka containing extraterrestrial life confirm the Hoyle-Wickramasinghe cometary panspermia hypothesis and the observational beginnings of Astrobiology and Astropaleontology. Life and water oceans at 2 Myr could not possibly have developed by Old Cosmology with its >400 Myr of dark ages. These first cometary panspermia observations suggest the dark matter planets of New (HGD) Cosmology. A new scenario for star formation from merging planets (not just gas and dust) is required. The Hertzsprung-Russell diagram changes. Large luminosity and high temperatures are no longer interpreted as due to large mass stars, but to large rates of planet accretion. Rapid planet accretion rates mix away the carbon cores of white dwarf stars permitting elements up to iron and nickel to form, with neutron stars and supernovae class II. The complexity of RNA-DNA requires the deep hot water oceans and early cosmic mixing mechanisms provided by cometary panspermia and the biological big bang. See: eg Gibson, Schild, Wickramasinghe, Nieuwenhuizen, Journal of Cosmology, 2012, Vol. 18, pp 8525-8538.