Table 6: Evidence for a Universe Designed to Support Life[87,88,89,90,91,92,93,94]

1. gravitational coupling constant
if larger: no stars less than 1.4 solar masses, hence short stellar life spans
if smaller: no stars more than 0.8 solar masses, hence no heavy element production

2. strong nuclear force coupling constant
if larger: no hydrogen; nuclei essential for life are unstable
if smaller: no elements other than hydrogen

3. weak nuclear force coupling constant
if larger: all hydrogen is converted to helium in the big bang, hence too much heavy elements
if smaller: no helium produced from big bang, hence not enough heavy elements

4. electromagnetic coupling constant
if larger: no chemical bonding
if smaller: no chemical bonding

5. ratio of electron to proton mass
if larger: no chemical bonding
if smaller: no chemical bonding

6. expansion rate of the universe
if larger: no galaxy formation
if smaller: universe collapses prior to star formation

7. entropy level of the universe
if larger: no star condensation iwthin the proto-galaxies
if smaller: no proto-galaxy formation

8. mass of the universe
if larger: too much deuterium from big bang, hence stars burn too rapidly
if smaller: no helium from big bang, hence not enough heavy elements

9. average distance between stars
if larger: heavy element density too thin for rocky planet production
if smaller: planetary orbits become destabilized

10. solar luminosity
if increases too soon: runaway greenhouse effect
if increases too late: frozen oceans

11. fine structure constant (a function of three other fundamental constants, Planck's constant, the velosity of light, and the electron charge)
if larger: no stars more than 0.7 solar masses
if smaller: no stars less than 1.8 solar masses

12. ^{12}C to ^{16}O energy level ratio
if larger: insufficient oxygen

if smaller: insufficient carbon