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**Protons to Planets: Mapping the Routes to Life**

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In this talk I will review some of the extraordinary advances that have been made in the search for the potential harbors for life in the Universe. The discovery of exoplanets, and the nascent science of their study, has been revolutionary. Together with the exploration of our own solar system and the investigation of circumstellar disks around young stars, a picture is being revealed of how the ingredients of planets are assembled. To take this to the next step, and ask how life might be initiated on these worlds we must integrate these efforts with a knowledge of the chemistry taking place in environments from tenuous interstellar gas clouds to the rough and tumble of a proto-planetary system. Many of the key questions are seen across multiple disciplines, and I will attempt to summarize some of these.