CURRICULUM VITAE

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Degrees: B.A. (Chemistry) cum laude 1966, Knox College, Galesburg, Illinois.
Ph.D. (Chemistry-Biology) 1973, University of Miami, Coral Gables, FL

Experience:

SETI Institute, Mountain View, CA.	Research scientist, 1993-present.
The Salk Institute, San Diego, CA.	Research scientist, 1979-1993.
	Postdoctoral fellow, 1976-1979.
University of California, Berkeley, CA.	Postdoctoral fellow, 1975-76.
University of Alabama in Birmingham, AL.	Postdoctoral fellow, 1972-75.

Professional Editorial board member of the *Origins of Life*, 1986-1992, 1996-present.
Member of the International Governing Committee of the International Society of Rare Sugars

Honors: Phi Beta Kappa, 1966

Grants: National Aeronautics and Space Administration grants for studying prebiotic chemistry involved in the origin of life, 1979-present.

Memberships: International Society for the Study of the Origins of Life
American Chemical Society
International Society of Rare Sugars

Personal Information: Born 7 June 1943, Chicago, Illinois

Relevant Publications:

Weber, A.L. (1982) Formation of pyrophosphate on hydroxyapatite with thioesters as condensing agents. *BioSystems* **15**: 83-189.

Weber, A.L. (1984) Prebiotic formation of "energy-rich" thioesters from glyceraldehyde and N-acetylcysteine. *Origins of Life* **1**: 17-27.

Weber, A.L. (1984) Nonenzymatic formation of "energy-rich" lactoyl and glyceroyl thioesters from glyceraldehyde and a thiol. *Journal of Molecular Evolution* **20**: 157-166.

Weber, A.L. (1985) Alanine synthesis from glyceraldehyde and ammonium ion in aqueous solution. *Journal of Molecular Evolution* **21**: 351-355.

Weber, A.L. (1997) Energy from redox disproportionation of sugar carbon drives biotic and abiotic synthesis. *Journal of Molecular Evolution* **44**: 354-360.

Weber, A.L. (1998) Prebiotic amino acid thioester synthesis: Thiol-dependent amino acid synthesis from formose substrates (formaldehyde and glycolaldehyde) and ammonia. *Origins of Life and Evolution of the Biosphere* **28**: 259-270.

Weber, A.L. (2000) Sugars as the optimal biosynthetic carbon substrate of aqueous life throughout the Universe. *Origins of Life and Evolution of the Biosphere*, **30:** 33-43.

Weber, A.L. (2001) The Sugar Model: Catalysis by amines and amino acid products. *Origins of Life and Evolution of the Biosphere* **31**: 71-86.

Weber, A.L. (2001) The Sugar Model: Catalytic flow reactor dynamics of pyruvaldehyde s ynthesis from triose catalyzed by poly-L-lysine contained in a dialyzer, *Origins of Life and Evolution of the Biosphere* **31**: 231-240.

Weber, A.L. (2001) The Sugar Model: Catalysis by amines and amino acid products. *Origins of Life and Evolution of the Biosphere* **31**: 71-86.

Weber, A. L. (2002) Chemical constraints governing the origin of metabolism: The thermodynamic landscape of carbon group transformations under mild aqueous conditions. *Origins of Life and Evolution of the Biosphere* **32**: 333-357.

Pizzarello, S. P. and Weber, A. L. (2004) Prebiotic amino acids as asymmetric catalysts. *Science* **303**: 151.

Weber, A. L. (2004) Kinetics of organic transformations under mild aqueous conditions: Implications for the origin of life and its metabolism. *Origins of Life and Evolution of the Biosphere* **34**; 473-495.

Weber, A. L. (2005) Aqueous synthesis of peptide thioesters from amino acids and a thiol using 1, 1' carbonyldiimidazole. *Origins of Life and Evolution of the Biospheres* **35**: 421-427.

Weber, A. L. (2005) Growth of organic microspherules in sugar-ammonia reactions. *Origins of Life and Evolution of the Biospheres* **35**: 523-536.

Weber, A. L. and Pizzarello, S. (2006) The peptide-catalyzed stereospecific synthesis of tetroses: A possible model for prebiotic molecular evolution. *Proc. Nat. Acad. of Sci., USA* **103**: 12713-12717.

Weber, A. L. (2007a) The Sugar Model: Autocatalytic activity of the triose-ammonia reaction. *Origins of Life and Evolution of the Biospheres*, in press.

Weber, A. L. (2007b) Sugar world chemistry: Sugars as the carbon and energy source for the origin of life. Proceedings of the 3rd Symposium of International Society of Rare Sugars, Rare Sugar Congress 2006 in Kagawa, Takamatsu, Japan, Nov. 21-24, 2006, in press.

Tarter, J., Backus, P., Mancinelli, R., Aurnou, J., Backman, D., Basri, G., Boss, A., Clarke, A., Deming, D., Doyle, L., Feigelson, E., Freund, F., Grinspoon, D., Haberle, R., Hauck, S., Heath, M., Henry, T., Hollingsworth, J., Joshi, M., Jura, M., Kilston, S., Laughlin, G., Liu, M., Meikle, E., Reid, I., Rothschild, L., Scalo, J., Segura, A., Tang, C., Tiedje, J., Turnbull, M., Walkowicz, L., **Weber, A.** and Young, R.: 2007, A Re-appraisal of the Habitability of Planets Around M Dwarf Stars, *Astrobiology* **7**, in press.