While gas phase pollutants and suspended particulate matter in our atmosphere have received much attention, aerobiology has largely been ignored by the civil and environmental engineering community. Certainly this is not consistent with the Civil Engineers’ charter to protect public health. The era of global warming, widespread asthma and bioterrorism brings renewed attention to bioaerosols, which we now define as a generic class of airborne particulate matter including any macromolecular compounds of biological origin. The characterization and control of bioaerosols is a last frontier for environmental engineers, and in this context a synopsis of more than a decade of bioaerosol research will be presented from an engineer’s perspective.