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Dear Reader,

This issue of the Berkeley Scientific Journal revolves around “waste,” seemingly extemporaneous objects left over by nature or human activity. Admittedly, our theme is a bit of a misnomer. A running theme throughout this issue is objects once thought to be “waste” found under further analysis to be of great value. This issue highlights one of my favorite aspects of science, the way once held notions and ideas change as new information arises. Moreover, waste is an incredibly important subject in science today. Technological advances over the last century and a half have greatly improved the quality of life for many, but they also have waste byproducts that must be dealt with. Understanding waste is crucial to building a sustainable future.

Our latest issue combines features articles written by our staff, interviews with Cal professors, and top-quality research performed by undergraduate Cal students. On an interplanetary scale, we have an article looking at space debris left by humans [1], and the role stellar waste plays in human life [4]. Narrowing our focus to human life, we have an article on the body wasting away as a consequence of eating disorders [9], and an analysis on the function of “Junk DNA” [15], how industrial waste enters and affects the human body [22], and a look at telomeres, DNA sequences often tied to aging [29]. Finishing off we have a selection of articles analyzing technological uses of waste, beginning with a look at solid-oxide fuel cells [12], a piece on data fragmentation and how computers handle waste [18], and an article on nuclear power and its subsequent creation of waste [26].

For our interviews we first met simultaneously with Professor Ahn and Professor Carson to talk to them about the technical and social aspects of the problem of nuclear waste management [30]. Then we present Professor von Meier, who talks to us about renewable energy sources [36]. In our final interview, we hear from Professor Hermanowicz on sustainability and water filtration [44]. To conclude we have an excellent paper which highlights original research spearheaded by Cal undergraduate Olivia Cope. We thank you for your readership, and hope you enjoy our foray into the world of waste.

Go Bears!

Ali Palla
Editor-in-Chief

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