

of the tests, very often the portent of the title 'forensic scientist' vastly outweighed the actual contribution of the evidence. Modern DNA testing in particular has addressed that balance, and indeed led to its own issues.

The book's introduction may seem too long but is in itself a measure of the meticulous and inward nature of the author. One of his favored childhood pastimes was to escape into reveries that puzzled his teachers and led to doubts about his mental well being! By his own words he was a thoughtful child usually of dour expression, his attempts to change his persona only led to painful and public embarrassment. He tells all with a self-critical frankness that is tinged with contempt for his critics.

It is difficult for those of us who have not experienced war to imagine the fear and horror involved, particularly as in Stuart Kind's case, when he is sent on decoy missions to draw enemy fire over Germany. His descriptions of fear are couched in dark humor and one reads a scientist's lifetime training in reporting the facts without embellishment. But

"what is all this to do with being a skeptical witness?", you may ask impatiently.

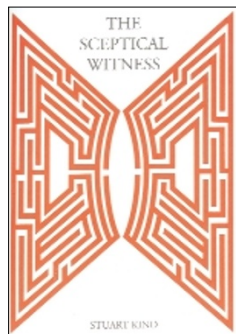
Having experienced the man firsthand when I worked for him at the height of his career, I see now that his approach to life has been constant: treat everything as a learning experience, don't take anything at face value and above all be prepared to go it alone. This skeptical philosophy served him well in his forensic career but robbed him of the rigid and conventional approach necessary to be awarded a doctorate. His inability to manage upwards is a continual theme, and if I were allowed to assign Stuart a theme song it would be "I did it my way."

The book is easy to read even though the author allows himself to be drawn away from his main theme frequently. He handles his digressions well and, as one would expect with Stuart Kind, he does so in impeccable English. I was not surprised to find that the tragedy behind some of the stories underplayed, as with his war time experiences. The book describes a particularly disturbing episode when the revelation of truth led

to the suicide of a scientist who was on the brink of exposure. Stuart pursued his quarry with a relentlessness that disturbed his colleagues, I see now from his book that he is as harsh a judge of himself as he is of others.

Thus the hallmark of this man of science is that he is cold and sometimes detached to the point of ruthlessness, what matters to Stuart is that the truth is revealed.

If you are interested in the fascinating microcosm of forensic science, this book will provide you with an informed view of its early days. The cult of the individual was rife, and Stuart was a key individual. As with many professions, developments since Stuart's day have accelerated, forensic science in the last ten years is unrecognizable from its humble beginnings. Even so, I would be the first to recognize that the scientific foundations that I inherited—some of which are still used today—and the reputation of the Home Office Forensic Science Service, which continues to lead the world in its current guise as an Executive Agency of the Home Office, owes much to the characters of the Service. Stuart Kind for some was the greatest character, and as a bonus he has taken the trouble to write about his profession.



Research News

Feeling sleepy? Its in your genes!

A series of recent publications have finally provided clues to the molecular and genetic bases of sleep. A paper by Jones *et al.* in this issue (see 1062 and 983) reports that human Advanced Sleep Phase Syndrome is a inheritable genetic condition. Two recent papers described the first genes associated with narcolepsy, a debilitating sleep disorder. In the 6 August issue of *Cell*, Lin *et al.* identified a mutation in the gene encoding the orexin receptor 2 (*Hcrtr2*) as the cause of narcolepsy in Doberman pinschers. Then, in the 20 August issue of *Cell*, Manashi Yanagisawa's group reported that deletion of the *Hcrtr2* ligand, *orexin*, causes a phenotype in mice that is remarkably similar to human narcolepsy. Orexins are neuroexcitatory peptides that are localized to synaptic vesicles of neurons in the lateral hypothalamus. They were initially

believed to be involved in energy balance and control of feeding, but subsequent studies, including these two, suggest a broader role for orexins as major neuromodulators of sleep. Human narcolepsy is usually treated with amphetamine-like stimulants to control daytime sleepiness, and antidepressants to control REM sleep abnormalities. These studies suggest that orexins, or drugs that affect orexin function, may offer new therapeutic approaches for narcolepsy and other sleep disorders.

KRISTINE NOVAK

Rock around the clock

Researchers in the fields of cocaine abuse and circadian locomotor activity probably do not often collaborate, but a paper published in the 13 August *Science*, by Jay Hirsh and colleagues, has established a link between the two. Hirsh's group demonstrated that four of the five known circadian rhythm genes are also necessary

for cocaine sensitization—the heightened response to small doses of cocaine thought to underlie its potential for abuse. Wild-type *Drosophila* demonstrate sensitization to cocaine in the form of exaggerated grooming, proboscis extension and circling locomotor behaviors. However, this sensitization is eliminated in flies mutant for the recently identified circadian genes *period*, *clock*, *cycle* and *doubletime*, even when higher doses of cocaine are given over two days. Hirsh's group believes that the link between cocaine sensitization and circadian control of locomotion may occur at the level of dopaminergic signaling pathways (see also Koob and Caine, page 993). Although it is difficult at this stage to extrapolate this discovery to human drug addiction or circadian rhythmicity, these unexpected findings bear serious consideration because of the conservation of the biogenic amine and circadian pathways between *Drosophila* and humans.

KAREN BIRMINGHAM