

## TECHNICAL GRAMMY AWARD

# DR. ANDY HILDEBRAND



BY SARAH JONES

When Dr. Andy Hildebrand invented Auto-Tune pitch correction technology 25 years ago, he helped to redefine the sound of modern music in ways that even he couldn't have imagined. Auto-Tune has grown from a corrective device into a creative effect that has evolved with the decades — one that, for many, signals the sound of contemporary pop.

The tool that transformed the vocal production landscape emerged from unlikely beginnings: seismic science. In the late '80s, Hildebrand, a geophysical engineer and mathematician, left a lucrative career pioneering 3-D seismic-mapping technologies in the oil industry to go to music school. At Rice University, the accomplished flautist focused on composing with synthesizers, but grew dissatisfied with the unnatural sounds of digitized instruments. So, he began writing his own audio-

processing algorithms, applying digital signal processing technology he developed in the geophysical industry.

Hildebrand was on to something, and he knew it. In 1990 he founded Jupiter Systems — which would become Antares Audio Technologies — to develop his own instrument-sampling software.

Hildebrand had another breakthrough five years later. Lunching with friends at a NAMM conference, always eager for a challenge, he posed a half-serious question: "What needs to be invented?" One woman joked, "Why don't you make a box that lets me sing in tune?" An idea took root.

He realized he could apply his sound-based geophysical algorithms to pitch processing, and in the spring of 1997, Antares released the first version of Auto-Tune. News of the groundbreaking technology spread through the music industry like wildfire. Auto-Tune's efficiency, ease of use, and most importantly, its natural

and undetectable pitch correction, made it an instant studio essential.

At first, Auto-Tune was a closely held studio secret, employed to discreetly polish vocal tracks. But everything changed in 1998 when Cher's blockbuster hit "Believe," with its deliberately unsubtle pitch-processing effect, brought the "Auto-Tune sound" into the public consciousness — the singer's glitchy vocal glides showcasing the technology's capability as a creative tool with vast potential. For the first time since the vocoder, a studio effect was defining a new vocal sound. Fans loved it, and artists in every genre started asking engineers for the "Cher effect."

Over the next decade, the use of Auto-Tune rocketed. It would shape the bold new sounds of landmark albums, from Daft Punk's *Random Access Memories*, which spawned the robo-disco smash "One More Time," to Lil Wayne's *Tha Carter III*. The unmistakable "T-Pain effect" became synonymous with modern hip-hop. Auto-Tune, coupled with the creativity of visionary artists, blazed the way for new rap and hip-hop sounds that would be exponentially replicated and reconfigured in a constellation of musical styles.

Ever since Andy Hildebrand's imagination brought us Auto-Tune, what was once behind-the-scenes is now center stage, with artists as diverse as Post Malone, Radiohead and Lady Gaga tapping Auto-Tune technology to sculpt their vocal sounds, both live and in the studio.

"Dr. Andy" left the industry long ago, but his impact endures. Few technology inventions have shaped the musical zeitgeist so profoundly. Like the electric guitar, the multitrack recorder, and the sampler, Auto-Tune and the work of Andy Hildebrand are forever imprinted on the way people make and enjoy music.