SYFY

In *Alphas*, Ryan Cartwright plays Gary Bell, a superhero with autism and the ability to 'read' electromagnetic signals.

Q&A Bruce Miller

Superpower sleuth

The US television series Alphas *features an unusual breed of superhero: ordinary people with extreme abilities. In the run-up to the second season, head writer Bruce Miller explains how he sifts through the latest scientific findings to craft an array of superpowers.*

ILLUSTRATION: NICK HIGGINS
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Where does *Alphas*' particular mix of fact and the fantastical come from?
Zak Penn and Michael Karnow created *Alphas*; they have a lot of experience in the world of comic books. They were looking for that sense of realism, of being grounded in our world. Our show is much more fulfilment than fantasy. I relate it to perfect pitch. I have no ear for music, and my son has perfect pitch; it might as well be a superpower as far as I am concerned. For the show, we try to extrapolate in one direction or another from our knowledge of neurology and from that of authors such as Oliver Sacks, who study brains that work in a slightly different way. For example, if you could live for 200 years and could heal yourself, what would happen to your brain — are there parts that couldn't keep up?

How do you develop a new character?
When we started work on the second season, we were fascinated by short- and long-term memory, how long-term memories are stored differently and where they are stored. We asked, "What is everybody shooting for in their lives?" So many people are trying to live in the moment, so we came up with a character who embodies the good and the bad of that: Kat, played by Erin Way. We had read about muscle memory, for instance: how, after repeated movement, the transmission of nerve signals to the muscles involved becomes more effective, and those movements become automatic. Kat has instant muscle memory — and can also learn anything just by reading a book on the subject. But things that happened to her more than a month ago start to fade away.

What kind of people make up your writing staff?
It is a mix. We have people who know the title, the running time and the original broadcast date of every episode of *Star Trek*. But my affection for this show and genre came much more from science. I think I live somewhere in the *Wired* world — a little more science than science fiction.

Do you have science advisers?
We have a wonderful science adviser at the University of California, Los Angeles: the neurologist Susan Bookheimer. She gives us a lot of guidance on autism, because we have an autistic character, Gary, and we try to make him as real as possible. She reads every script and tells us, say, when Gary wouldn't use a metaphor in a certain way. There is an episode later in the second season in which Gary has to take care of a foundling child, for instance. Susan spoke of the desire someone like Gary would have to bond with a child, and how Gary might try to satisfy the needs of a baby — research he would do, and so on. We also spoke about the current studies using drugs, such as vasopressin, to enhance social affiliation in autistic children.

Can you discuss the scientific phenomena from the forthcoming season?
We have an episode about infrasound — very low-frequency sound that causes hallucinations. We also have a character who moves much more quickly than anyone else. He is all about perception, plus fast-twitch muscles plus circadian rhythm — that is, what if someone had a different biological clock to the rest of us? He is 22 but he looks like he is in his forties. This works more as metaphor than science: it could be the stress of his condition that makes his body age, or he might actually be going through life faster. We tend to think that the way we perceive time is absolutely the way time goes by, but there can be vast differences in individual experiences of time's passing, and also between people's experiences and our perceptions of them.

Does science ever outpace the programme?
Sometimes we read about something and start to work on a script. Then, three months later, when we've finished the script, we will find it is already happening — we learn about it as scientific papers are picked up rapidly online and in the popular press. And so we say: "Oh, it's not fascinating enough — we need to push it a little."

INTERVIEW BY MARC WEIDENBAUM