



# Revenge of the Birds

## Jack Horner says we can grow dinosaurs from poultry. Great.

FLIP THE RIGHT GENETIC SWITCHES in a chicken embryo and you just might hatch a baby dino. Paleontologist Jack Horner intends to do it. He explains his scheme to rewind evolution in a new book, *How to Build a Dinosaur: Extinction Doesn't Have to Be Forever*. We asked him if there is anything—anything at all—that could possibly go wrong. —Damon Tabor

### **Dinochicken—walk me through the concept.**

Birds are descendants of dinosaurs. They carry their DNA. So in its early stages, a chicken embryo will develop dinosaur traits like a long tail, teeth, and three-fingered hands. If you can find the genes that cancel the tail and fuse the fingers to build a wing—and turn those genes off—you can grow animals with dinosaur characteristics. **It's a romantic idea, that dinosaurs can live on in bird form.**

Dinosaurs are not extinct; they're still with us in this sense. Birds look different, but it's all cosmetic. By tweaking some genes, we can bring out the underlying similarities. Yes, it's a wild plan, but I like to think about things backwards.

### **You were a consultant on *Jurassic Park* ... Should we be worried here?**

Look, it's not like dinochicken will overrun the world. If he mates with a chicken, you still get a chicken. Eventually we might make animals that look more like dinosaurs, but we won't have velociraptors on the loose.

### **Thorny ethical issues?**

If you think we're playing God, maybe. But we're already modifying plants and mice. I don't see a lot of people jumping up and down complaining about better tomatoes.

### **Are you getting flak from other researchers?**

Scientists who play by someone else's rules don't have much chance of making discoveries.

### **The initial funding came out of your own pocket. Is money an issue?**

It shouldn't cost more than a couple million dollars. That isn't a heck of a lot of money when it comes to big science.

### **What's the upside? What do you hope to gain from this?**

Ultimately, we hope it can lead to a cure for genetic defects. Once we understand just how to control genes, we have the potential for spinal cord regeneration, bone regeneration, and so on. It might also give us plumper chickens.

### **It would certainly prove the creationists dead wrong.**

Religion is about faith, not evidence. Comparing science and religion isn't like comparing apples and oranges—it's more like apples and sewing machines.

### **In your book, you envision getting dinochicken a spot on *Oprah*. Why?**

The creature would be its own sound bite. It'll go a long way toward convincing people that we can learn a lot from this sort of experimentation—about biology, development, evolution. Otherwise we're just a bunch of wild scientists building monsters in our laboratories.

