Putting Genetics to Work to Find Missing Children

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Carlos Lujan for The New York Times

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IT was more than a decade ago, as his taxi made its way through the troubled neighborhoods of Lima, that Dr. José A. Lorente, an expert in forensic genetics, first started thinking about the plight of street children.

In Peru to consult with police officials about identifying the bodies of some terrorists, he could not help asking them what they did to help the children. The police told him there was little they could do. There was no way to identify them, no way to reunite them with their families and usually they just ran away if they were taken to orphanages.

Dr. Lorente was not satisfied with that answer.

"I knew there was a way," he said. "I knew that DNA could do that. And I thought, We can keep track of the pedigree of dogs and racehorses, can't we do as much for children?"

In his glass and steel headquarters here, he seems a long way from the gritty streets that first inspired him. But even if the clean-cut Dr. Lorente, iPad at the ready, looks like an unlikely champion of the world's lost, stolen and trafficked children, it is what he has become.

He has made headlines around the world helping to identify the remains of Christopher Columbus and Simón Bolívar, and bodies found in mass graves in Chile and elsewhere. But along the way he has also managed to persuade officials in 16 countries — including Guatemala, Mexico, Peru, Ecuador, Brazil, Nepal, Indonesia, Malaysia, India and Thailand — to begin building DNA databanks that can identify and reunite missing children with their families.

The idea is simple enough. In his mind's eye, Dr. Lorente, 51, sees a network of national databanks storing the

DNA of parents who have lost children. That way when children are found, even years later, they can be matched. He also sees such databanks as playing a crucial role in preventing the adoptions of stolen children and in dismantling trafficking rings.

"This is all doable, and we should be doing it," Dr. Lorente said. He acknowledges it is a large ambition for a civilian running genetics labs in one of Spain's smaller cities, a subject, he said, that sometimes comes up at his home. "My wife says, 'So, you are Don Quixote, right?' "

Dr. Lorente laughs. But he argues that his idea makes sense and will eventually take hold. In the meantime, the foundation he set up in 2004, DNA-Prokids, has been providing willing countries with thousands of free DNA tests and DNA collection kits. So far, he says, the free tests have been used in reuniting about 550 children with their families, most of them in Guatemala and Peru. The tests have also stopped more than 200 illegal adoptions.

Dr. Lorente believes that adoptions should always involve genetic testing to make sure the parents giving away the child are really the parents. And he says that 80 percent of the world's street children have families who would gladly take them back if they could be found.

He had a leg up, he says, when he decided to pursue the idea of DNA databanks. He knew a lot of the right people. He had spent more than a year doing research in the labs at the Federal Bureau of Investigation's training center at Quantico, Va., in the early 1990s. At the time, he was helping to develop ways to match DNA even when the sample was badly deteriorated — for instance, if it came from blood that had been sitting in the sun for a long time.

BUT in the evenings, he ate in the cafeteria with everyone else on the sprawling campus, including the many foreigners who had come to Quantico for training, people who would later became important figures in their own countries.

"They became ministers and police chiefs, and they kept inviting me to come consult," he said. "So when I traveled I was talking to them about this, too."

Some of the free tests are performed in Granada, some at the University of North Texas Health Science Center in Fort Worth, where his former boss at the F.B.I. lab, Bruce Budowle, is now the executive director of the Institute of Applied Genetics. Dr. Budowle says Dr. Lorente has a knack for pushing this particular agenda. "He is an excellent communicator who really excels at talking to the higher-level people," Dr. Budowle said. "And he has the passion."

Dr. Lorente says there is a real excitement to working on big-name cases like identifying the remains of Columbus and Bolívar. But it is the more intimate cases that stay with him longer.

"When you can look at a mother and you can say, 'O.K., we have found your son's body,' " he said, "that, for me, is huge."

Dr. Lorente was born into a family of doctors and always loved science. The only question was what kind of doctor he would be. Then, when he was in medical school, a professor suggested that he write a paper on DNA analysis — in those days a brand-new area of research. He was hooked.

AT home in Spain, he runs two labs at the University of Granada, one that focuses purely on forensic genetics and one that concentrates on cancer research, using similar techniques to isolate and analyze tumor cells. He travels about 10 times a year, making his pitch wherever he goes.

Until recently, however, he had never met any of the families DNA-Prokids helped reunite. But the company that developed some of the test kits used by his foundation decided to make a promotional video and flew him to California to meet Brenda Corado, who had been reunited with her daughter, Angela, in Guatemala.

Ms. Corado had been walking on the street with Angela, then 21 days old, when two men got out of a car, snatched the baby from her arms and beat her until she passed out. What the men intended to do with the child is unclear. But Dr. Lorente believes that they probably intended to make money putting the child up for adoption.

Two months later, however, an infant girl was abandoned at a Christian television station in Guatemala and, using DNA analysis, the police were able to identify that baby as Angela.

"I just saw how she looked," Dr. Lorente said of his first meeting with Ms. Corado. "What could she say? You don't make money at this. But you do feel proud."

Rachel Chaundler contributed reporting.