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Armstrong's adviser taints Tour efforts

By Sal Ruibal, USA TODAY

LIMOGES, France — Italian physician Michele Ferrari has been involved in some of the most important decisions about Lance Armstrong's training and is the author of many of the theories of human performance that have made the U.S. rider one of the greatest bicycle racers.



Dark clouds have followed Lance Armstrong this year, and his physician, Michele Ferrari, is being investigated in a doping scandal.

By Paolo Cocco, AFP

"There are only four people who really know what's going on with Lance's body: me, Michele, (team director) Johan Bruyneel and Freddy (Viaene, Armstrong's massage therapist)," says Chris Carmichael, Armstrong's longtime coach.

But Ferrari isn't with the U.S. Postal team car in France. He's watching the Tour on TV at home in Ferrara, Italy. That's because the 51-year-old Ferrari is also under investigation in a doping case in Italy that alleges he advised pro cyclist Filippo Simeoni and other athletes to use the blood booster erythropoietin (EPO) and testosterone-based Andriol in 1996 and 1997. Simeoni also claims Ferrari taught him how to beat drug tests.

The Tour does not ban riders from taking advice from those under investigation, so Armstrong is not subject to dismissal because of his relationship with Ferrari and has not distanced himself from him.

But the relationship has not helped the five-time champion in his assertions that he never has used performance-enhancing drugs and never has had a positive drug test. It's a matter of associations, as has been the case with track star Marion Jones and her relationships with various figures in the high-profile BALCO investigation. Jones also has said she never has used performance-enhancing drugs and never had a positive drug test.

The Tour has shown a willingness to suspend riders under suspicion of using banned performance-enhancing drugs, even if they haven't had a positive doping test, much as the U.S. Anti-Doping Agency's charges could keep track and field athletes out of the Olympics even without a positive doping test.

Monday, race officials dropped riders Stefano Casagrande of Italy and Martin Hvastija of Slovenia because they are under investigation for doping. Two other riders, including world time-trial champion David Millar of Scotland, were banned before the Tour began July 3.

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Carmichael, former head coach of the U.S. Olympic cycling team, met Ferrari in San Diego in 1995 and soon introduced him to Armstrong, who had won a world championship and a stage in the Tour but was not considered a potential overall winner of the world's biggest cycling race.

"He's a very smart guy," Carmichael says of Ferrari.

Carmichael and Armstrong communicate with Ferrari mostly by e-mail. Armstrong uses a sophisticated SRM on-board cycling computer that stores data from each ride, including heart rates, speed, pedal cadence and power output measured in watts produced. He e-mails that data to Ferrari, who analyzes it and sends his observations to Carmichael.

Ferrari's most famous formula — the *Velocita Ascensionale Media* (VAM) — produces a precise measure of the rider's rate of ascent, calculated over a specific distance and grade. Ferrari uses Armstrong's data to see what is the most efficient means of achieving maximum power output.

"In mountain stages of races such as the Tour," Ferrari says, "most of the work a rider does goes to overcome gravity, so VAM is a useful indicator of the rider's form on that day."

Carmichael adjusts the training program based on Ferrari's interpretation of Armstrong's physical state.

"All of the training schedules are prescribed by me," Carmichael says. "I have the final decision."

Sticking by his guy

The final outcome on Ferrari is still far from determined. The case has been plodding through the Italian judicial system for more than two years. No final charges have been made; all doping charges that do not involve possession are considered "sports fraud."

In a dramatic February 2002 court hearing in Bologna, Italy, Ferrari's chief accuser, Simeoni, testified that while he never received drugs from Ferrari, "I took EPO under the instructions of Dr. Ferrari, then further on from March to April (1997) we were talking about taking Andriol that I had to take after intensive training, based on strength, to give power to my muscles."

Ferrari rebutted that testimony in an April 2003 hearing, telling the court, "Simeoni was caught red-handed and lied to get a lighter ban. Simeoni is a damned liar. He even lied to me."

Armstrong first acknowledged the relationship with Ferrari in 2001 after newspaper stories brought up the issue at the same time his U.S. Postal team was under investigation by French prosecutors for alleged doping in the 2000 Tour. After a 19-month investigation into the use of the blood-boosting drug Actovegin, Armstrong and his team were cleared.

The team said the drug was on hand for treating severe skin abrasions caused by crashes and for use by a staff member with diabetes.

The Tour will not comment on the case because Ferrari is not part of the Tour in any official capacity.

Armstrong, in the midst of his attempt to win an unprecedented sixth Tour title, has always said he believes Ferrari is innocent. The 32-year-old Texan adds that if Ferrari were to be convicted, he would cut all ties.

"I believe that these charges are all groundless," Armstrong told USA TODAY in June. "Michele is telling the truth. I will back him until I see evidence otherwise. The man is extremely talented; he's more than a coach, he's like a mathematician or a physicist."

After years of grinding through the glacial Italian judicial system, the case might finally be nearing resolution.

Simeoni recently told cyclingnews.com he had been in touch with his lawyers "and they tell me that in a short time, the discovery part of the case will be closed by the prosecutor of Latina (Italy) and the date for the trial will be set."

But the legal wrangling and resulting publicity connected to Ferrari will still go on.

Armstrong is suing the authors of the recently released *L.A. Confidential, the Secrets of Lance Armstrong*, David Walsh and Pierre Ballester, for libel in the United Kingdom and France. Their French-language book contains allegations that Armstrong used performance-boosting drugs before he won the 1999 Tour and includes mentions of Ferrari.

Armstrong, in turn, is being sued by Simeoni because the Tour champion allegedly defamed him by calling him a "compulsive liar" in the April 18 edition of the French daily newspaper *Le Monde*.

Partnership has been intense

Despite the controversy and huge risk Armstrong is taking should Ferrari be found guilty, their partnership has solidified. Armstrong implicitly trusts Ferrari's theories on high-altitude training, perhaps the key element in his dominance of the Tour.

In an e-mail interview with USA TODAY, Ferrari said that his work with the champion takes up almost half of Armstrong's year.

"My relationship with him is that of consultancy in training," Ferrari writes, "which we can simplify by subdividing it in three distinct phases:

- "A first winter part of about eight to 10 weeks focused on strength work.
- "A second 10- to 12-week part centered on aerobic work (endurance and aerobic power development).
- "A subsequent part is usually that of fitness refining with race tempos."

He also hosts three to four pre-Tour altitude-training camps, each spaced out by either training or racing periods at sea level.

"Apart from this natural training, he does not use other hypoxic training methods or devices," Ferrari writes of Armstrong. "Sometimes he does sleep for some nights at simulated altitude (with an altitude tent) before actually going to the training camp, in order to better become acclimatized to altitude."

To critics who have insinuated that altitude training is just a smoke screen to hide the use of blood boosters such as EPO, Ferrari points out that a person's hematocrit (red blood cell) level "is an extremely variable parameter, especially in athletes: Every time plasmatic volume changes, so does it modify hematocrit. Hydration status, physical efforts, detraining: all of these significantly alter the values of hematocrit, which can (give a test) result above the (legal) limit of 50%, even in athletes who didn't take any kind of medicine."

But he does note that altitude training, "be it natural or simulated, stimulates the natural production of EPO, which itself favors the formation of red blood cells.

"It is impossible to distinguish an artificial increase in hematocrit from a natural one."

Learning through vast experience

Ferrari has to be careful about what he says about synthetic EPO.

He has been saddled for several years with what he says is an inaccurate quote that equated EPO's safety with that of orange juice.

His intent, he writes, was to say that EPO and orange juice can be used safely, but both can be dangerous if abused.

"EPO is illegal. And that is all about it," he writes in the email. "I'm totally against administration of any kind of medicines with the intent of artificially enhancing

performance. Every athlete has rights to take medicines for therapeutic reasons or to limit the lesions caused by intense sport practice, obviously in every respect to laws and regulations.

"I am convinced that it is possible to be competitive by developing and utilizing the most proper training strategies. The majority of doping medicines used in sport are not only dangerous for health; they definitely do not improve performances, if not even worsening them."

Ferrari also writes that he has learned much from his experience with the judicial system and sees that the courts are not necessarily the best way to deal with the performance-enhancing drugs.

"I personally think that prohibition alone does not resolve the doping problem," he writes. "It is necessary to make athletes understand, with the help of credible arguments, that doping is not essential, that often it can worsen performances and that it is possible to reach results through perfection of nutritional and training strategies and proper lifestyle."

Expanding his involvement

Ferrari, who was born, reared, earned his medical degree in medicine and surgery and still lives in the Italian town of Ferrara (and is no relation to the famed automaker), doesn't stray far from home.

"His English is not too good," says Carmichael. "He's more comfortable with e-mail."

From 1977-80 Ferrari was a consultant for the Italian Track and Field Federation, and from 1984-94 he was the physician for many professional cycling teams.

There are signs that the reclusive Ferrari is ready to return to the public arena. He has begun an online coaching service, www.53x12.com, that is similar to Carmichael's personalized Web coaching system.

Ferrari is also writing Tour commentaries for the popular Australian cyclingnews.com Web site and has begun granting interviews again, a practice he stopped after his infamous "orange juice" quote appeared.

"He has suffered under this investigation for far too long," Armstrong says. "It is time for this to be over."

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