

**'These kind of people should not run with us.
For me, she's not a woman. She's a man.'**

ELISA CUSMA of Italy, about Caster Semenya, the 800-meter gold medalist



DAVID J. PHILLIP/ASSOCIATED PRESS

Caster Semenya, an 18-year-old from South Africa, after the women's 800 meters at the world track and field championships in Berlin on Wednesday.

Gender Test After a Gold-Medal Finish

By CHRISTOPHER CLAREY

BERLIN — On the blue track at the Olympic Stadium, all three medalists celebrated after the women's 800 meters at the world track and field championships. But when it came time for the post-race news conference, the gold medalist, Caster Semenya, was nowhere to be seen. She had been replaced on the rostrum by Pierre Weiss, the general secretary of the International Association of Athletics Federations, the sport's governing body.

Earlier in the day, I.A.A.F. officials had confirmed that Semenya, a muscular 18-year-old from South Africa competing in her first senior championship, was undergoing sex-determination testing to confirm her eligibility to race as a woman.

According to Weiss, track and field officials had not had time to resolve the issue before this meet because Semenya had emerged at the world-class level

only in the past month. Weiss said that I.A.A.F. officials and South African track and field officials had agreed that it would be too much to ask of an inexperienced teenager to field questions about the gender issue from the news media.

But Weiss stressed that the testing had been initiated because of "ambiguity, not because we believe she is cheating."

It was an unprecedented scene at a major sports event, one that eclipsed the night's other finals, including Yusuf Saad Kamel's victory for Bahrain in the men's 1,500 meters with Bernard Lagat of the United States taking the bronze medal.

But despite the controversy, Semenya had no apparent difficulty handling the pressure of her first major final. She broke free of her much more experienced competitors on the final lap and

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MICHAEL SOHN/ASSOCIATED PRESS

Semenya had no apparent difficulty handling the pressure of her first major final. She won by a big margin in 1 minute 55.45 seconds.

Gender Testing Is Set After Gold-Medal Finish

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won by the huge margin of more than two seconds, finishing in 1 minute 55.45 seconds. (That was still more than two seconds slower than the world record.)

The silver medal went to Janeth Jepkosgei, the defending world champion from Kenya, who finished well back in 1:57.90. The bronze went to Jennifer Meadows of Britain in 1:57.93.

Weiss said that the medal ceremony for the 800 would take place as scheduled on Thursday evening in the stadium but that if the investigation proves Semenya is not a woman, she would be stripped of the gold and the other medalists elevated. The investigation could take weeks, he said.

"But today there is no proof and the benefit of the doubt must always be in favor of the athlete," he said. "Which is why we had no reason, nothing in our hands, to forbid the athlete to compete today."

Not all of the finalists agreed. "These kind of people should not run with us," Elisa Cusma of Italy, who finished sixth, said in a post-race interview with Italian journalists. "For me, she's not a woman. She's a man."

Mariya Savinova, a Russian who finished fifth, told Russian journalists that she did not believe Semenya would be able to pass a test. "Just look at her," Savinova said.

But sex-determination testing is a complex process that has often not been handled effectively by sports organizations.

"It turns out genes, hormones and genitals are pretty complicated," Alice Dreger, a professor of medical humanities and bioethics at Northwestern University, said in a telephone interview. "There isn't really one simple way to sort out males and females. Sports require that we do, but biology doesn't care. Biology does not fit neatly into simple categories, so they do these tests. And part of the reason I've criticized the tests is that a lot of times, the officials don't say specifically how they're testing and why they're using that test. It should be subject to scientific review."

Sex-determination testing was once obligatory for female athletes at the Olympics because of persistent allegations that some competitors were not really women. Sanctions are very rare. One case came at the 2006 Asian Games, where a middle-distance runner, Santhi Soundarajan of India, was stripped of a silver medal after failing a verification test.

The sex-determination testing was phased out in 1999 because of concerns about inequities. The testing is now reserved for specific cases in Olympic sports.

Nick Davies, a spokesman for the I.A.A.F., said that Semenya, who is listed at 5 feet 7 and 140 pounds in her I.A.A.F. biography, first came to his organization's attention this year by slicing more than seven seconds off her best time of 2008 in the 800.

That is a huge drop in a relatively short race, but after run-

ning 2:04.23 and winning the 2008 Commonwealth Youth Games, she ran 2:00.58 in a local South African meet on March 9 and burst to prominence by winning the African Junior Championships on July 31 in Bambous, Mauritius, in 1:56.72. That was the fastest time of the year, senior level included.

Davies said that potential doping was the first concern when a dramatic drop in time occurs, but in Semenya's case, he said the I.A.A.F. had moved on to examining other possibilities.

"We just acted in a way we thought was sensible," Davies said. "If we would have sat back and done nothing, it would have been very strange of us as well."

He said the I.A.A.F. had decided to confirm the existence of the investigation only when asked about it in Berlin by reporters. "The choice is that you lie, which we don't like to do," said Davies, acknowledging that it was unfortunate that Semenya's privacy had been violated.

Raising suspicions because of major improvement.

Weiss said there had not been enough time to reach a conclusion. "She was unknown three weeks ago," he told reporters. "Nobody could anticipate this one. Sorry. We are fast, but we are not a lion."

He said the I.A.A.F. would have "preferred not to have the controversy" at its marquee event, but not at the price of depriving a potentially eligible athlete like Semenya from competing.

"If none of it's true, I feel very sorry for her," said Meadows, the British athlete who sat next to Weiss during the medalists' news conference.

Weiss said that the two-pronged investigation was being conducted in South Africa and in Berlin in hospitals that specialize in sex-testing issues. He said that Dr. Harold Adams, a South African on the I.A.A.F. medical commission, was helping to coordinate the work in South Africa.

Davies emphasized that the testing is extensive, beginning with a visual evaluation by a physician. "There is chromosome testing, gynecological investigation, all manner of things, organs, X-rays, scans," he said. "It's very, very comprehensive."

Dreger, the Northwestern professor, said the doctors could examine genes, gonads, genitalia, hormone levels and medical history.

"But at the end of the day, they are going to have to make a social decision on what counts as male and female, and they will wrap it up as if it is simply a scientific decision," Dreger said. "And the science actually tells us sex is messy. Or as I like to say, 'Humans like categories neat, but nature is a slob.'"

Gold Is Awarded, but Dispute Over Runner's Sex Intensifies

By **CHRISTOPHER CLAREY**
and **GINA KOLATA**

BERLIN — As an 18-year-old runner from a village in South Africa received her gold medal in Olympic Stadium on Thursday night, activity away from the track had put her at the center of an international dispute: doctors here and in her home country were examining test results to determine whether she has too many male characteristics to compete as a woman.

The case of Caster Semenya, who has burst to prominence this season, touched off a debate over whether she should be allowed to keep her medal and, more broadly, how sports officials are supposed to discern the fuzzy biological line between male and female.

Medical experts said assigning sex was hardly as easy as sizing someone up visu-



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Caster Semenya won the women's 800 meters Wednesday.

ally. Even rigorous examinations can result in ambiguous findings. Some conditions that give women male characteristics can be discovered only through intrusive physical examinations, and others require genetic analysis.

"We can get quite philosophical here — what does it mean to be male or female?" said Dr. Richard Auchus, a specialist in disorders of sexual differentiation at the University of Texas Southwestern Medical Center at Dallas.

"For 99 percent of the population it's easy to determine," he added. "But one percent of the population have conditions that make it not so straightforward."

Some of Semenya's competitors in the 800 meters considered the issue straight-

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Gold Is Awarded, but a Dispute Over Gender Intensifies

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forward after Semenya romped to a commanding victory at the world championships Wednesday. "Just look at her," said Mariya Savinova of Russia, who finished fifth. Elisa Cusma of Italy, who was sixth, told Italian journalists: "These kind of people should not run with us. For me, she's not a woman. She's a man."

But the matter is anything but simple. The testing done on Semenya, at the behest of the International Association of Athletics Federations, track and field's world governing body, takes weeks to complete. It requires a physical medical evaluation, and includes reports from a gynecologist, an endocrinologist, a psychologist, an internal medicine specialist and an expert on gender. The effort, coordinated by Dr. Harold Adams, a South African on the I.A.A.F. medical panel, is being conducted at hospitals in Berlin and South Africa.

It is unclear what the exact threshold is, in the eyes of the I.A.A.F., for a female athlete being ineligible to compete as a woman.

Nick Davies, a spokesman for the I.A.A.F., said that Semenya first came to the group's attention this year when she cut more than seven seconds off her best time of 2008 in the 800 meters. She won the African Junior Championships on July 31 in 1:56.72, the fastest time this year before the world meet. Davies called that performance "a bombshell result."

The I.A.A.F. investigated possible doping violations but found nothing, Davies said. "When you've ruled that out, there are other possibilities that come into play."

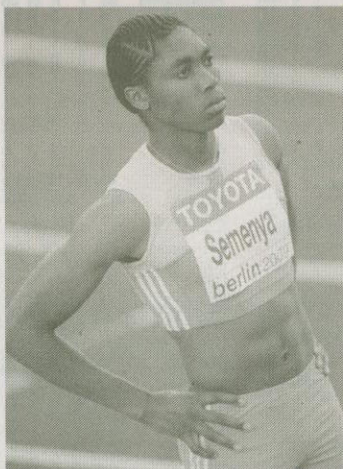
"The fact that she's a young woman, a girl, running that time, that comes into play," he added, referring to suspicions of gender issues.

After the doping inquiry, Davies said, someone "within the I.A.A.F. community" urged a further look into sex issues. Davies emphasized that the organization does not generally conduct sex verification tests based on its own hunches: there must be a challenge by another athlete or team or suspicion raised during the process of specimen collection during doping control.

Davies would not say who brought the challenge in Semenya's case. According to I.A.A.F. policy, an investigation is supposed to be confidential. In this case, Davies said, the I.A.A.F. decided to confirm the existence of the investigation only when reporters asked about it.



Muriel Semenya with her sister Caster's medals. South Africans at home and in Berlin criticized the investigation and its timing.



AGENCE FRANCE-PRESSE — GETTY IMAGES

"The choice is that you lie, which we don't like to do," he said, adding that it was unfortunate that Semenya's privacy had been violated.

South Africans at home and in Berlin reacted angrily to the gender investigation and its timing, which they said had spoiled what should have been a moment of triumph for Semenya.

"We condemn the motives of those who have made it their business to question her gender due to her physique and running style," the African National Con-

gress, South Africa's ruling party, said in a statement. "Such comments can only serve to portray women as being weak."

"Caster is not the only woman athlete with a masculine build and the International Association of Athletics Federation should know better."

Leonard Chuene, president of the South African athletics federation, said in an interview at Olympic Stadium: "I am offended. I feel what the parents are feeling. I feel what this child is going through."

Semenya did not address the news media after her race Wednesday, and Thursday she declined to speak about the issue after the medal ceremony.

In comments reported by South Africa's Sowetan newspaper, Semenya's father, Jacob, said, "I raised her and I have never doubted her gender. She is a woman, and I can repeat that a million times."

Chuene and some South African athletes suggested that there might be an anti-African bias at work. "The question I ask is if this were a European person, would these questions be raised?" said Ruben Ramolefi, a track athlete for South Africa. "It seems there's hypocrisy behind

it."

Sex tests emerged in sports in the 1960s, when the Soviet-bloc countries were suspected of entering male athletes in women's events. The tests found several athletes who were born with genetic defects that made them appear to be men, at least according to lab results.

In 1967, the Polish sprinter Ewa Klobukowska was barred from the sport because she failed the chromosomal test. In the 1980s, the Spanish hurdler Maria José Martínez Patino was disqualified because the test revealed that she was born with a Y chromosome. Her eligibility was reinstated in 1988.

Complicated cases are common. For example, a disorder known as congenital adrenal hyperplasia gives women excess testosterone from a source other than the testes — the adrenal glands. In mild cases genitals may appear normal and often no one suspects the problem. Women with the disorder are allowed to compete as females.

The Bantu, a group of indigenous South African people, often are hermaphrodites but they do not always have obvious male genitalia, said Dr. Maria New, an endocrinologist at Mount Sinai

School of Medicine. They are genetically female yet have both testes and ovaries.

To spot the condition, doctors sometimes must do a laparoscopic exam, remove tissue from the gonads, and biopsy it, New said.

Then there is a list of rare genetic disorders that can confuse sexual identity. Some genetic males, for example, have mutations in a gene needed to form testes. Although they look like women, genetically they are men, with an X chromosome and a Y chromosome.

Davies said that the sex testing includes "chromosome testing, gynecological investigation, all manner of things, organ, X-rays, scans." But, New said, if the tests do not include genetic ones, most of the sex disorders will be missed. Chromosomes can look perfectly normal, she said. It is the genes that are altered.

All that Semenya can do at this point is await the test results. Chuene, the president of the South African athletics federation, said she was upset by the furor.

"She has not taken any substance to enhance herself artificially," he said. "Her crime is to be born like that. It is a God-given thing."

ESSAY

Sex Verification: More Complicated Than X's and Y's

By ALICE DREGER

The only thing we know for sure about Caster Semenya, the world-champion runner from South Africa, is that she will live the rest of her life under a cloud of suspicion after track and field's governing body announced it was investigating her sex.

Why? Because the track organization, the I.A.A.F., has not sorted out the rules for sex typing and is relying on unstated, shifting standards.

To be fair, the biology of sex is a lot more complicated than the average fan believes. Many think you can simply look at a person's "sex chromosomes." If the person has XY chromosomes, you declare him a man. If XX, she's a woman. Right?

Wrong. A little biology: On the Y chromosome, a gene called SRY usually makes a fetus grow as a male. It turns out, though, that SRY can show up on an X, turning an XX fetus essentially male. And if the SRY gene does not work on the Y, the fetus develops essentially female.

Even an XY fetus with a functioning SRY can essentially develop female. In the case of Androgen Insensitivity Syndrome, the ability of cells to "hear" the masculinizing hormones known as androgens is lacking. That means the genitals and the rest of the external body look female-typical, except that these women lack body hair (which depends on androgen-sensitivity).

Women with complete Androgen Insensitivity Syndrome are less "masculinized" in their muscles and brains than the average woman, because the average woman makes and "hears" some androgens. Want to tell women with Androgen Insensitivity Syndrome they have to compete as men, just because they have a Y chromosome? That makes no sense.

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Caster Semenya's eligibility to race as a woman has been scrutinized.

ESSAY

More Complex Than X's And Y's

From First Sports Page

So, some say, just look at genitals. Forget the genes — pull down the jeans! The I.A.A.F. asks drug testers to do this. But because male and female genitals start from the same stuff, a person can have something between a penis and a clitoris, and still legitimately be thought of as a man or a woman.

Moreover, a person can look male-typical on the outside but be female-typical on the inside, or vice versa. A few years ago, I got a call from Matthew, a 19-year-old who was born looking obviously male, was raised a boy, and had a girlfriend and a male-typical life. Then he found out, by way of some medical problems, that he had ovaries and a uterus.

Matthew had an extreme form of Congenital Adrenal Hyperplasia. His adrenal glands made so many androgens, even though he had XX chromosomes and ovaries, that his body developed to look male-typical. In fact, his body is mostly male-typical, including his muscle development and his self identity.

O.K., you say, if chromosomes and genitals do not work, how about hormones? We might assume that it is hormones that really matter in terms of whether someone has an athletic advantage.

Well, women and men make the same hormones, just in different quantities, on average. The

When does a natural advantage become an unfair advantage?

When does a natural advantage become an unfair advantage?

average man has more androgens than the average woman. But to state the obvious, the average female athlete is not the average woman. In some sports, she is likely to have naturally high levels of androgens. That is probably part of why she has succeeded athletically.

By the way, that is also why she is often flat-chested, boyish looking and may have a bigger-than-average clitoris. High levels of androgens can do all that.

Sure, in certain sports, a woman with naturally high levels of androgens has an advantage. But is it an unfair advantage? I don't think so. Some men naturally have higher levels of androgens than other men. Is that unfair?

Consider an analogy: Men on average are taller than women. But do we stop women from competing if a male-typical height gives them an advantage over shorter women? Can we imagine a Michele Phelps or a Patricia Ewing being told, "You're too tall to compete as a woman?" So why would we want to tell some women, "You naturally have too high a level of androgens to compete as a woman?" There seems to be nothing wrong with this kind of natural advantage.

So where do we draw the line between men and women in athletics? I don't know. The fact is, sex is messy. This is demonstrated in the I.A.A.F.'s process for determining whether Semenya is in fact a woman. The organization has called upon a geneticist, an endocrinologist, a gynecologist, a psychologist and so forth.

Sex is so messy that, in the end, these doctors are not going to be able to run a test that will answer the question. Science can and will inform their decision, but they are going to have to decide which of the dozens of characteristics of sex matter to them.

Their decision will be like the consensus regarding how many points are awarded for a touchdown and a field goal — it will be a sporting decision, not a natural one, about how we choose to play the game of sex.

These officials should — finally — come up with a clear set of rules for sex typing, one open to scientific review, one that will allow athletes like Semenya, in the privacy of their doctors' offices, to find out, before publicly competing, whether they will be allowed to win in the crazy sport of sex. I bet that's a sport no one ever told Semenya she would have to play.

Alice Dreger is professor of clinical medical humanities and bioethics in the Feinberg School of Medicine at Northwestern University, and the author of "Hermaphrodites and the Medical Invention of Sex" (Harvard University Press, 1998).

South African Runner's Sex-Verification Result Won't Be Public

By JERÉ LONGMAN

One of the most public and controversial cases of sex verification in sports has apparently been resolved, at least in part, but the answers to some important questions have not been made public.

South Africa's sports ministry said in a statement Thursday that Caster Semenya, 18, the world champion 800-meter runner, had reached an agreement with track and field's world governing body to keep the gold medal and prize money she won at the world championships in August.

Most notably, however, the sports ministry did not say whether Semenya would be allowed to continue to compete as a woman. The statement also did not disclose the results of sex-verification tests she had undergone.

"As such, there will be no public announcement of what the panel of scientists has found," the sports ministry said. "We urge all South Africans and other people to respect this professional, ethical and moral way of doing things."

Semenya, who attends the University of Pretoria, could not be reached for comment. Her coach,

Michael Seme, said in a telephone interview from Pretoria that Semenya "is going to compete as a woman and will remain a woman until she dies."

Asked whether Semenya had been cleared to compete as a woman without further testing or surgery, Seme said: "I don't want to talk about that. The only thing I want to say is that I'm happy Caster will retain her title as the fastest 800-meter runner in the world. The most important thing when you are an athlete is to get your medal."

Disputes in sports over ath-
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KIM LUDBROOK/EUROPEAN PRESSPHOTO AGENCY

After an agreement with track's governing body, Caster Semenya of South Africa will keep her gold medal from the worlds.

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TRACK AND FIELD

Runner's Sex Tests Will Not Be Public

From First Sports Page

letes' sex are rare, and perhaps never has such a case been as volatile as the one that emerged at the world championships, when it became apparent how unprepared her sport was to handle cases of athletes who may have both male and female characteristics.

As Semenya posted the fastest time of the year in the 800 meters, track officials said they had begun sex verification testing on her, but South African officials said that they were blindsided by the claims and insulted that officials had disclosed such private information.

In September, Leonard Chuene, president of Athletics South Africa, apologized for denying knowledge of the sex tests done on Semenya in his country, saying he had hoped to protect her privacy.

After Semenya won the world title, international track officials ordered more tests, saying questions had been raised about her muscular physique and drastic improvement.

Chuene said that tests had been conducted at a Pretoria hospital on Aug. 7 at the behest of track and field's Monaco-based governing body governing body, the I.A.A.F. Chuene has said that despite medical advice from one of South Africa's top sports medical officials, he refused to withdraw Semenya from the competition in Berlin because the results of the tests were not yet known.

Athletics South Africa said last month that it had suspended Chuene and the rest of his board.

Sex-determination testing was once obligatory for female athletes at the Olympics because of persistent allegations that some competitors were not really women. Sanctions are very rare. One case came at the 2006 Asian Games, where a middle-distance runner, Santhi Soundarajan of India, was stripped of a silver medal after failing a verification test.

The sex-determination testing

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The sex-determination testing was phased out in 1999 because of concerns about inequities. The testing is now reserved for specific cases in Olympic sports.

The testing done on Semenya takes weeks to complete. It requires a physical medical evaluation, and includes reports from a gynecologist, an endocrinologist, a psychologist, an internal medicine specialist and an expert on gender. The effort, coordinated by Dr. Harold Adams, a South African on the I.A.A.F. medical panel, was conducted at hospitals in Berlin and South Africa.

It is unclear what the exact threshold is, in the eyes of the I.A.A.F., for a female athlete's being ineligible to compete as a woman.

"The implications of the scientific findings on Caster's health and life going forward will be analyzed by Caster and she will make her own decision on her future," the sports ministry said. "Whatever she decides, ours is to respect her decision."

The I.A.A.F. did not immediately respond to the statement made by the South African sports ministry. The statement had been expected to be issued next week.

The South African sports ministry said it had asked for an apology from the I.A.A.F., which denied leaking information about Semenya, but responded, "It is deeply regrettable that information of a confidential matter entered the public domain."

Makhenkesi Stofile, South Africa's sports minister, described Semenya as excited about the apparent resolution of her case, according to the South African Press Association.

"She will roll with the punches," Stofile told the press association. "In my view, Caster Semenya's future is in her hands. She can decide to run as a woman, which she is."

Panel Calls for Treatment In Cases of Sex Ambiguity

By GINA KOLATA

A panel of medical experts convened by the International Olympic Committee recommended Wednesday that the issue of athletes whose sex seems ambiguous be treated as a medical concern and not one of fairness in competition.

Athletes who identify themselves as female but have medical disorders that give them masculine characteristics should have their disorders diagnosed and treated, the group concluded after two days of meetings in Miami Beach. The experts also said that rules should be put in place for determining an athlete's eligibility to compete on a case-by-case basis — but they did not indicate what those rules should be.

"We did not address fairness," said Dr. Joe Leigh Simpson of Florida International University. He is an expert on such disorders and participated in the meeting. "The entire concept was that these individuals should be allowed to compete."

The group, sponsored by the I.O.C. and the governing body for track and field, met on Sunday

Experts convened by the I.O.C. focus on medical concerns.

and Monday in the wake of an international controversy over Caster Semenya, the South African runner who won the 800 meters at the world championships in Berlin in August. Other athletes complained that her masculine features suggested that she should not be allowed to compete as a woman, and track and field's governing body ordered sex testing. The results of those tests have not been released.

The panel's recommendations were criticized by some athletes, who said that athletes with masculinizing disorders are so different from other women that their presence in competition is unfair.

"If you start to do this you are making a joke of the fact that there are two classifications — male and female," said Doriane

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Panel Urges Treatment for Female Athletes With Male Characteristics

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Coleman, a law professor at Duke University and a former elite 800-meter runner. "They might as well open it up and have women competing with men."

Masculinizing disorders are rare but significantly more common among elite athletes than in the rest of the population, said Dr. Eric Vilain, a medical geneticist at U.C.L.A. and a participant in the meetings. They can be caused by an overactive adrenal gland, which would result in high testosterone levels from fetal life onward. Or someone might have the male Y chromosome but be relatively insensitive to testosterone. As a result, the person develops as a woman but has high testosterone levels that are only partly effective.

Exercise physiologists say one reason men have huge advantages in nearly every sport is

Andrew Keh contributed reporting.

their testosterone levels, which not only affect muscle and skeletal development but also are thought to affect things like the size of the heart and the amount of oxygen-carrying red blood cells in the body.

Members of the panel said that their concern was with sports federations' responsibility for athletes with medical disorders. Athletes' health might be endangered if their disorders are not diagnosed and treated, they said.

"Those who agree to be treated will be permitted to participate," said Dr. Maria New, a panel participant and an expert on sexual development disorders. "Those who do not agree to be treated on a case-by-case basis will not be permitted."

But, for critics like Coleman, this stance avoids the issue of fairness. It is not enough to simply lower testosterone levels after diagnosing an athlete's disorder, she said. By that point, the athlete has already reaped the benefits of a lifetime of height-

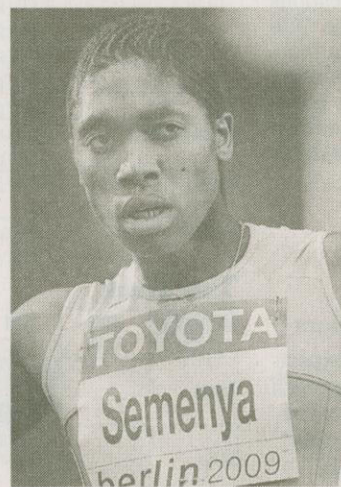
ened testosterone.

But panel members said it was impossible to wipe away every advantage an athlete might have.

Forget about level playing fields, said Dr. Myron Genel of Yale. "For a lot of us here, there is no such thing," he said. "We were told at the meeting about a Finnish family that was extraordinarily successful in cross-country skiing. They were found to have a genetic disorder that provided them higher levels of hemoglobin, and therefore they had superior oxygen-carrying capability. Specific genetic defects provide advantages."

The guidelines so far are merely recommendations, the participants emphasized. Some of the group's suggestions were deliberately vague. For example, it advised that medical "centers of excellence" be created to diagnose sex-development disorders.

How that would work was not spelled out publicly, although New said a more specific plan had been discussed. Sports au-



OLIVIER MORIN/AGENCE FRANCE-PRESSE

The South African runner Caster Semenya is at the center of the sex-testing debate.

thorities would send photographs of athletes to experts like her. If the expert thinks the athlete might have a sexual-development disorder, the expert would

order further testing and suggest treatment.

"This is a sea change from what they are doing now," New said.

Also left unresolved was how to enforce the policy about treating athletes whose sex seems ambiguous.

Consider, Vilain said, an athlete with a disorder that gives her a high testosterone level. Must she be treated to bring her testosterone level down to the average range for women? Or can it be in the high range? And how often must she be tested to be sure she is complying with her treatment?

Simpson, of Florida International University, said he recognized that some female athletes would find the guidelines unfair. But, he said, "we have to balance fairness to female athletes to fairness to other competitors."

"My opinion remains unchanged," Simpson said. "If you have a disorder of sexual development, you should be allowed to compete."

Another Sex Dispute, But Athlete Is a Horse

By BILL FINLEY

Martha Maxine might seem like an ill-fitting name for a 5-year-old male horse, but there is an explanation. He used to be a she.

Martha Maxine will be among the favorites Saturday in the \$125,000 Tony Maurello Stakes at Balmoral Park outside Chicago, the same harness racing track where he won the filly division of the same race a year ago. He will make his fourth start since tests determined the horse was intersex, with male sex chromosomes.

Complicated questions about possible intersex athletes have come up in human sports, including one recently in track and field, but those athletes typically have an opportunity to challenge any findings. In the case of Martha Maxine, the harness racing authorities took conclusive action. In June, the horse was reclassified as a male by the United States Trotting Association and is barred from female-only races.

The trainer and co-owner Ery Miller never suspected there was anything different about Martha Maxine; the horse had an uneventful but productive 2008 campaign. Still officially a female, Martha Maxine won 13 races last year, earning \$193,891.

"The only thing I ever noticed was that she was a very muscular mare," Miller said. "She carried a lot of muscle tone, like a male does. Other than that, there was nothing different about her. When you think you've seen everything in this business, something else comes along. That's what happened here."

The problems began when Martha Maxine finished second in the Betsy Ross final April 26 at Harrah's Chester in Pennsylvania. In a mandatory postrace test for steroids, the horse showed an elevated level of testosterone. With Miller adamant that Martha Maxine had not been treated with steroids, further tests revealed the unusual situation. According to Miller, the horse has normal female genitalia, but also has testicles inside his abdomen.

A comparable situation arose late last year when a horse named Arizona Helen — also racing at Chester, also registered as a filly — showed an elevated testosterone level after a steroid test. Arizona Helen was subsequently reclassified as a male.

"I'm certain that this sort of thing would give a horse an advantage over other females," said Dr. Sue McDonnell, a veterinarian at the University of Penn-

sylvania's New Bolton Center, where Martha Maxine was evaluated after the steroid test. "That's why people were giving steroids to mares in the first place. Steroids build muscle mass. In cases like this one, an animal that had this since birth and went through puberty as a male would be a larger horse with male characteristics, including the male drive to run."

Had it not been for steroid tests, it is unlikely that the unique condition of either horse ever would have been revealed. Steroids were banned only recently in North American racing.

"If not for those tests, you never would have known this with this mare," Miller said. "We paid a lot of attention to her because she's a good horse and we didn't have a clue."

Miller still refers to Martha Maxine as "she" or "her." He says it's a habit he can't break.

"I tried it the other way for a bit, calling her 'he,'" Miller said. "It just got me mixed up."

McDonnell said little research had been done in the area of intersex equines, but she said that somewhere between 1 in 1,000 and 1 in 10,000 horses have some versions of the condition.

After the Betsy Ross, it took nearly two months for Martha Maxine's situation to be resolved. Still officially a she, the 5-year-old continued to race against females. In June, Martha Maxine was declared a male, which Miller worried might derail what had become a lucrative year. As a female, she had won five times in 2009, earning more than \$200,000.

"I didn't know how she'd do against males," Miller said. "The males are stronger, and they're faster."

Martha Maxine lost his first three starts against males but rebounded to win a prep race for the Tony Maurello Stakes last week at Balmoral, covering the mile in a career-best 1:49 2/5. Miller was encouraged by the effort and is hopeful that Martha Maxine can continue to have a successful season. He sees Saturday's race as an important test.

"That's what we're about to find out, whether she can compete at a top level against males," he said. "She's eligible to an open race in Lexington, Ky., against some of the better males in the country. A lot will depend on how it goes Saturday night. She won the filly division last year. Now, she's in the colt division. We'll have to see what she can do. It's a strange situation."