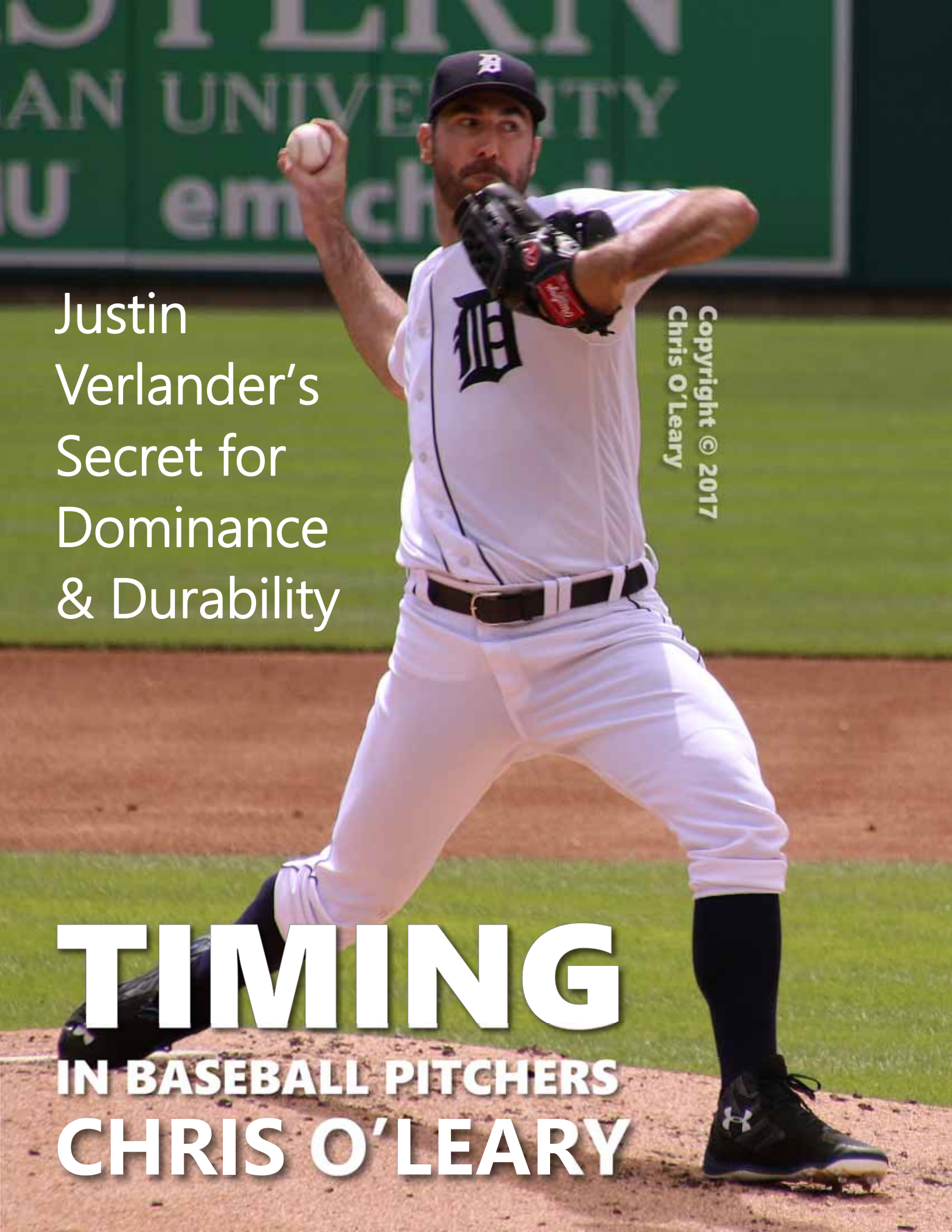


A full-page photograph of Justin Verlander, a professional baseball pitcher for the Detroit Tigers, captured in the middle of his pitching motion on a baseball field. He is wearing a white home uniform with the Detroit Tigers logo on the chest and a black cap. His right arm is extended forward holding the baseball, and his left arm is bent with the glove hand near his chest. The background shows a green outfield fence with some text partially visible.

Justin
Verlander's
Secret for
Dominance
& Durability

Copyright © 2017
Chris O'Leary

TIMING

IN BASEBALL PITCHERS
CHRIS O'LEARY

In a year in which Matt Harvey limped to the finish line of the season, Justin Verlander hit his peak in the postseason.

Why?

The conventional wisdom will tell you the answer to that question is simple.

JV's a freak.

Is it possible the conventional wisdom is correct?

Of course.

However, I have spent the past two years conducting an exhaustive study of Justin Verlander's pitching mechanics and I see a difference between Matt Harvey and Justin Verlander that the latest research says is significant.

A difference that I believe is the secret to reversing the epidemic of injuries in baseball pitchers.

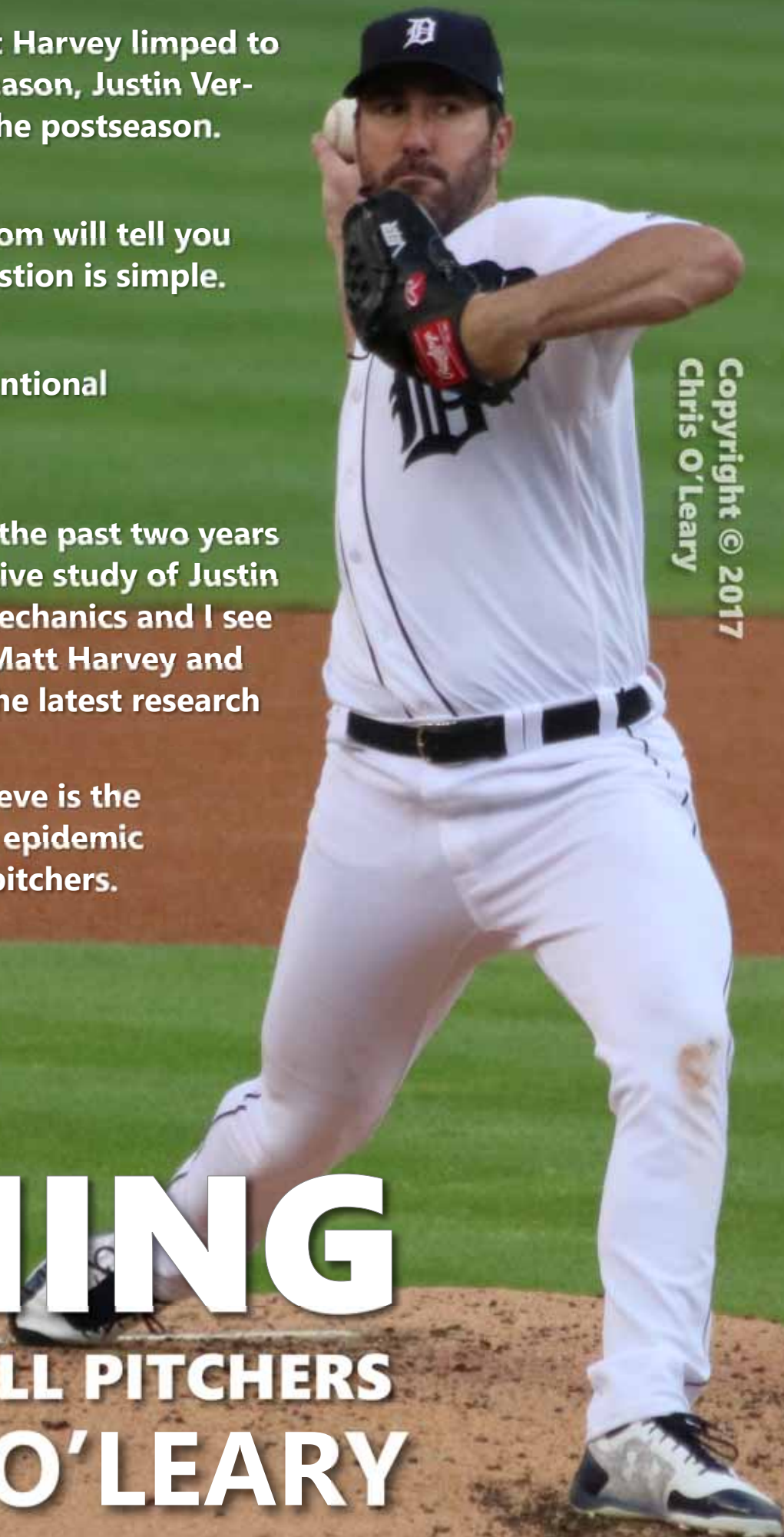
CHRIS O'LEARY
December 2017

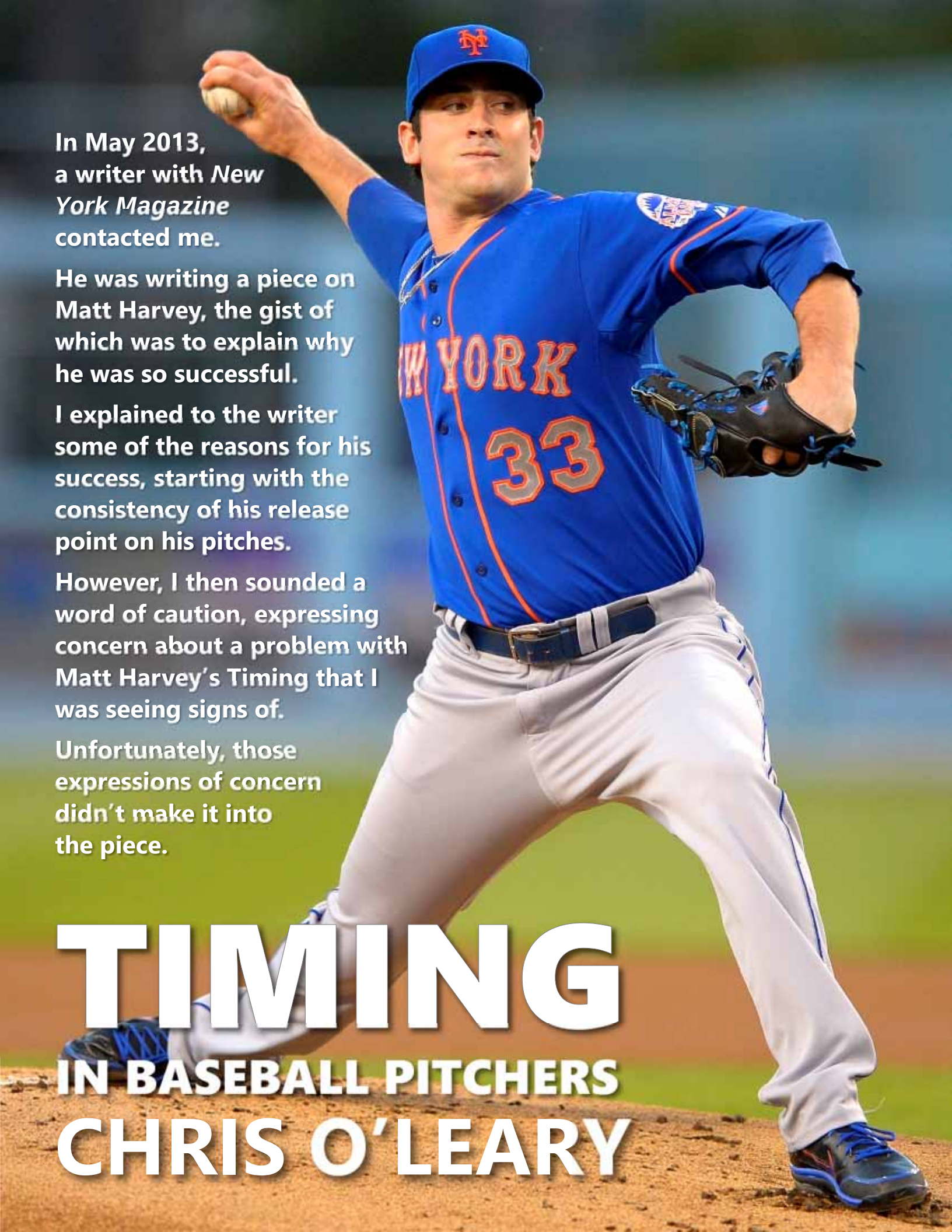
Copyright © 2017
Chris O'Leary

TIMING

IN BASEBALL PITCHERS

CHRIS O'LEARY





In May 2013,
a writer with *New
York Magazine*
contacted me.

He was writing a piece on
Matt Harvey, the gist of
which was to explain why
he was so successful.

I explained to the writer
some of the reasons for his
success, starting with the
consistency of his release
point on his pitches.

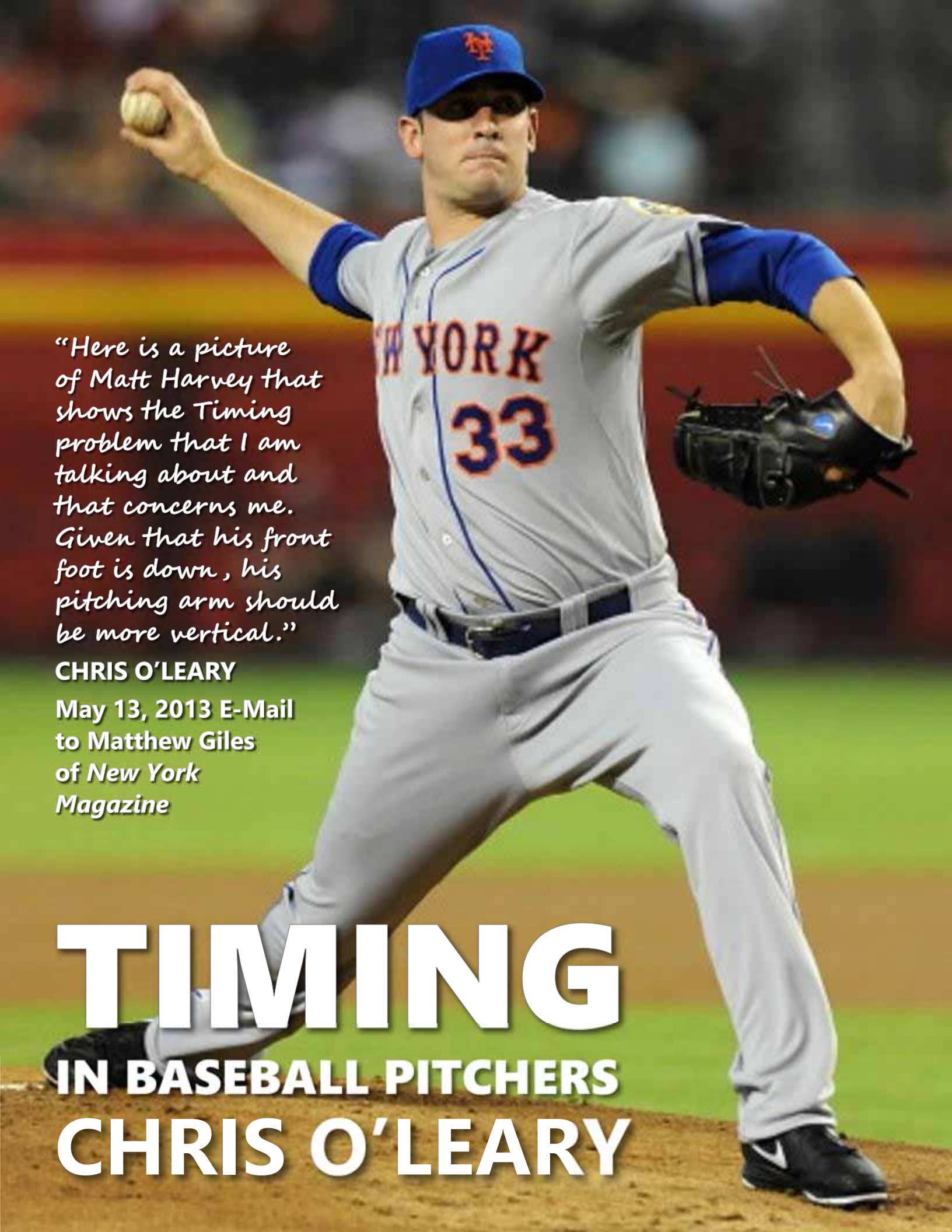
However, I then sounded a
word of caution, expressing
concern about a problem with
Matt Harvey's Timing that I
was seeing signs of.

Unfortunately, those
expressions of concern
didn't make it into
the piece.

TIMING

IN BASEBALL PITCHERS

CHRIS O'LEARY



"Here is a picture of Matt Harvey that shows the Timing problem that I am talking about and that concerns me. Given that his front foot is down, his pitching arm should be more vertical."

CHRIS O'LEARY

**May 13, 2013 E-Mail
to Matthew Giles
of New York
Magazine**

TIMING

IN BASEBALL PITCHERS

CHRIS O'LEARY

A full-page photograph of Justin Verlander, a Detroit Tigers pitcher, in the middle of his pitching motion. He is wearing a white Detroit Tigers uniform with a black "D" logo on the chest and a black cap with a white "D". He is holding a baseball in his right hand, which is raised high, and his left arm is extended forward in a follow-through motion. The background is a green outfield fence with white lettering, partially visible as "AN UNIVERSITY".

What was I seeing?

In sum, Timing refers to the position of the pitching arm when the shoulders start rotating, which is usually at foot plant.

If you look at Justin Verlander, his Timing is consistently good; his pitching arm is UP or nearly so when his front foot is planting.

What I was seeing in Matt Harvey was something quite different. Instead of being UP at foot plant, Matt Harvey's pitching arm was much closer to FLAT.

**Copyright © 2017
Chris O'Leary**

TIMING

IN BASEBALL PITCHERS

CHRIS O'LEARY

TIMING

Why is Justin Verlander dominating the 2017 postseason, in his 13th season, while Matt Harvey limped to the finish line in just his 5th season?

The conventional wisdom has a simple answer to that question.

Justin Verlander is a freak.

I've heard that a lot, and still hear it nearly every day, but have never been happy with it.

Why not?

Because there are visible differences between Justin Verlander and Matt Harvey, starting with their **Timing**; the position of their pitching arm when their shoulders start rotating, which is usually at front foot plant.

What interesting is those same differences can be seen if you compare other injury-free and injury-prone pitchers.

What's more, studies say that's **NOT** a coincidence.

The differences I'm talking about may seem small, but when you are talking about a pitcher who is trying to throw the ball 100 mph, they can very quickly add up.

Chris O'Leary
October 26, 2017

THE EPIDEMIC

by Chris O'Leary

JUSTIN VERLANDER

At front foot plant, and the start of shoulder rotation, Justin Verlander's fingers are behind the ball and he is pointing the ball at third base. He also has not yet pulled with his glove-side elbow, which helps keep his shoulders in line with the target and closed while his pitching arm is getting **UP**.

Most importantly, Justin Verlander's pitching arm is **UP** and at 90 degrees of external rotation at front foot plant.

www.chrisoleary.com

MATT HARVEY

At foot plant, Matt Harvey is staying long and is holding a position some call the Power T. His fingers are on top of the ball and his pitching arm is pronated and he is **Pointing the Ball at Second Base**.

While all of that is widely taught, it's a problem because Matt Harvey's pitching arm is relatively **FLAT** into and at foot plant as a result.

While that likely helps Matt Harvey throw harder, it works by overloading his arm.



Chris O'Leary

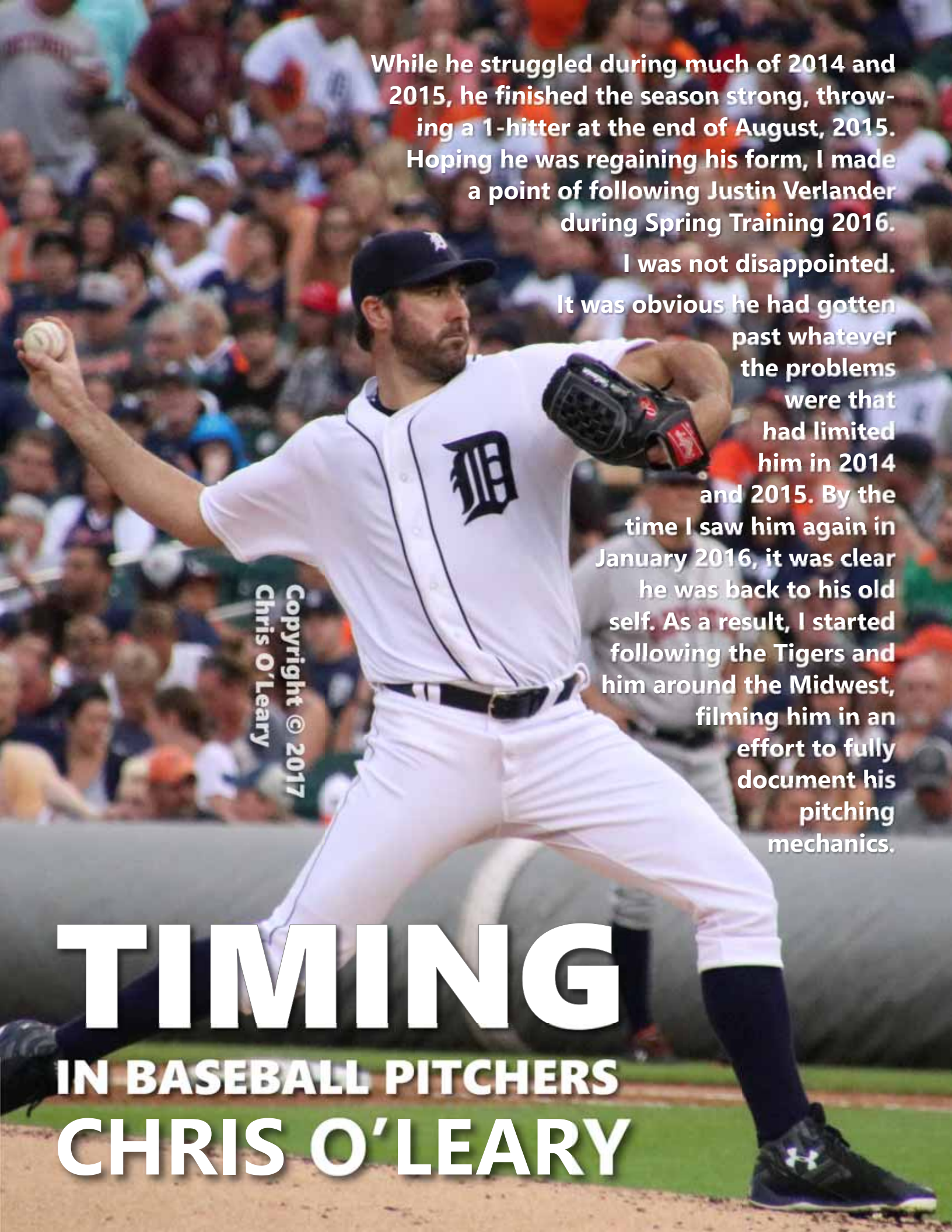
@thepaingguy



Saw [@JustinVerlander](#) pitch yesterday. Fastball. Dealing with easy velo. This is just... Need words... HE'S BACK!



1:59 PM - 16 Mar 2016



While he struggled during much of 2014 and 2015, he finished the season strong, throwing a 1-hitter at the end of August, 2015. Hoping he was regaining his form, I made a point of following Justin Verlander during Spring Training 2016.

I was not disappointed.

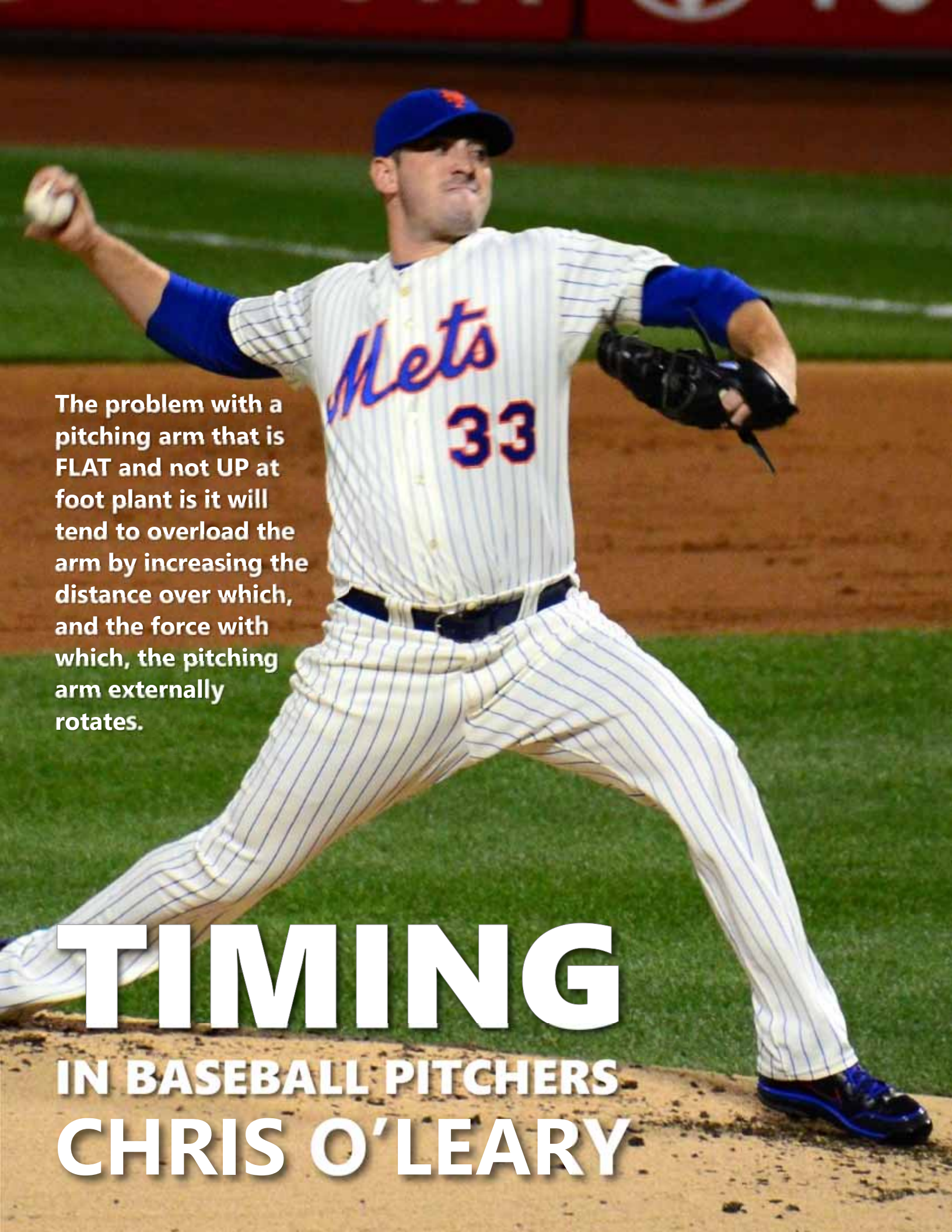
It was obvious he had gotten past whatever the problems were that had limited him in 2014 and 2015. By the time I saw him again in January 2016, it was clear he was back to his old self. As a result, I started following the Tigers and him around the Midwest, filming him in an effort to fully document his pitching mechanics.

Copyright © 2017
Chris O'Leary

TIMING

IN BASEBALL PITCHERS

CHRIS O'LEARY



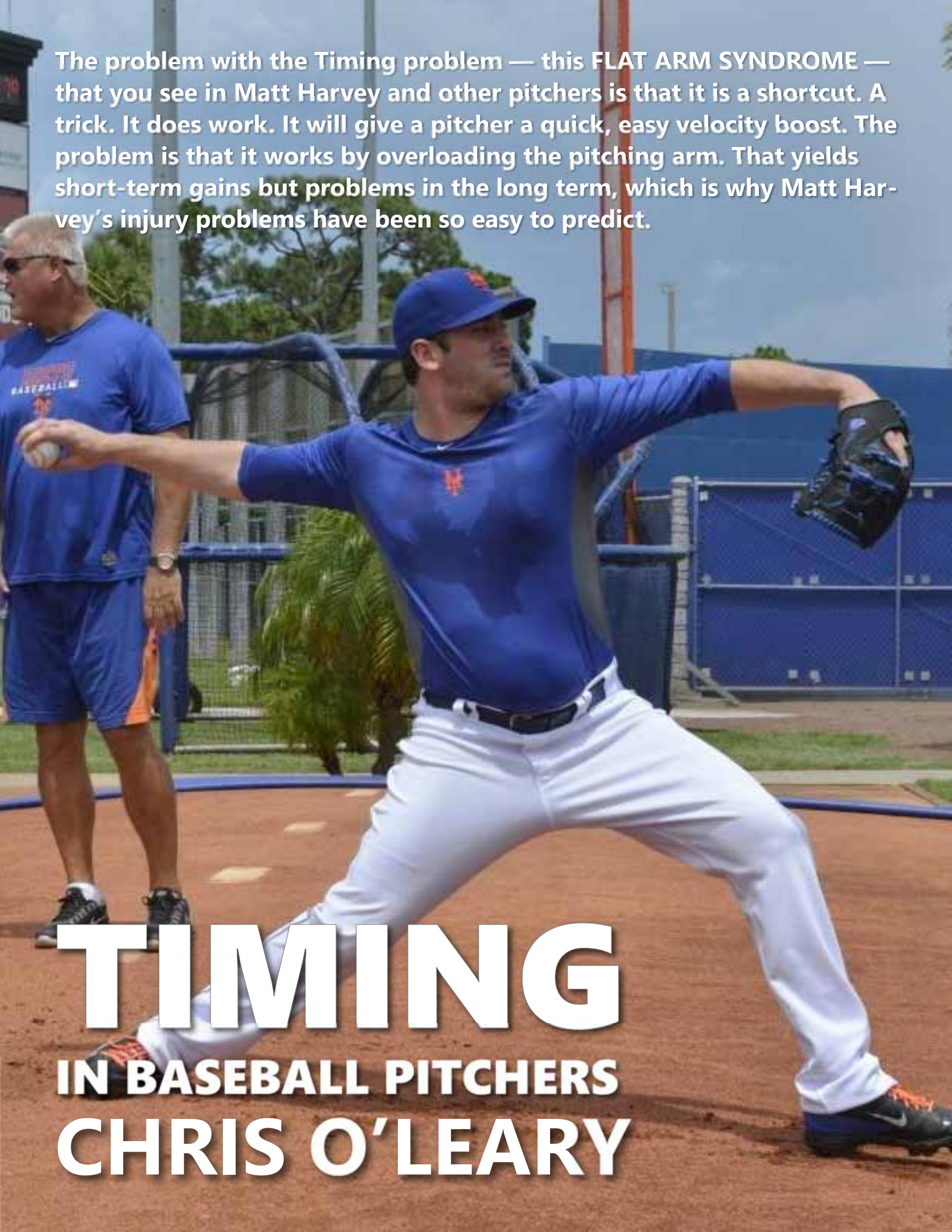
The problem with a pitching arm that is FLAT and not UP at foot plant is it will tend to overload the arm by increasing the distance over which, and the force with which, the pitching arm externally rotates.

TIMING

IN BASEBALL PITCHERS

CHRIS O'LEARY

The problem with the Timing problem — this FLAT ARM SYNDROME — that you see in Matt Harvey and other pitchers is that it is a shortcut. A trick. It does work. It will give a pitcher a quick, easy velocity boost. The problem is that it works by overloading the pitching arm. That yields short-term gains but problems in the long term, which is why Matt Harvey's injury problems have been so easy to predict.



TIMING

IN BASEBALL PITCHERS

CHRIS O'LEARY

Chris O'Leary
@thepaiguy

When Matt Harvey breaks again, this is why.
Didn't change anything after my 1st prediction.
chrisoleary.com/projects/pitch ...



7:37 PM - 6 Apr 2016

Chris O'Leary
@thepaiguy

It's going to CRUSH Mets and their fans when
Matt Harvey goes down.

Again. Again.

chrisoleary.com/projects/pitch ...



New York Mets @Mets
Pitching update: @MattHarvey33 will start today vs. Atlanta.
atmlb.com/2qjbxfr

9:50 AM - 27 Apr 2017

Retweet Like Heart Comment

Chris O'Leary
@thepaiguy

See how Matt Harvey arm is flat when the NY
logo on his chest starts to rotate? That's bad.
chrisoleary.com/projects/pitch ...



RETWEETS 2 LIKE 1

1:19 PM - 21 Mar 2016

Chris O'Leary
@thepaiguy

When Matt Harvey breaks, again, it will be
because he didn't change anything, again.
chrisoleary.com/projects/pitch ... PTB@2B
clients.chrisoleary.com/Pitching/The-E ...



LIKE 1

3:00 AM - 15 Feb 2017

Chris O'Leary
@thepaiguy

Good views of the Tommy John surgery Twist
that continues to put Matt Harvey's elbow --
and now shoulder -- at risk.
clients.chrisoleary.com/Pitching/The-E ...



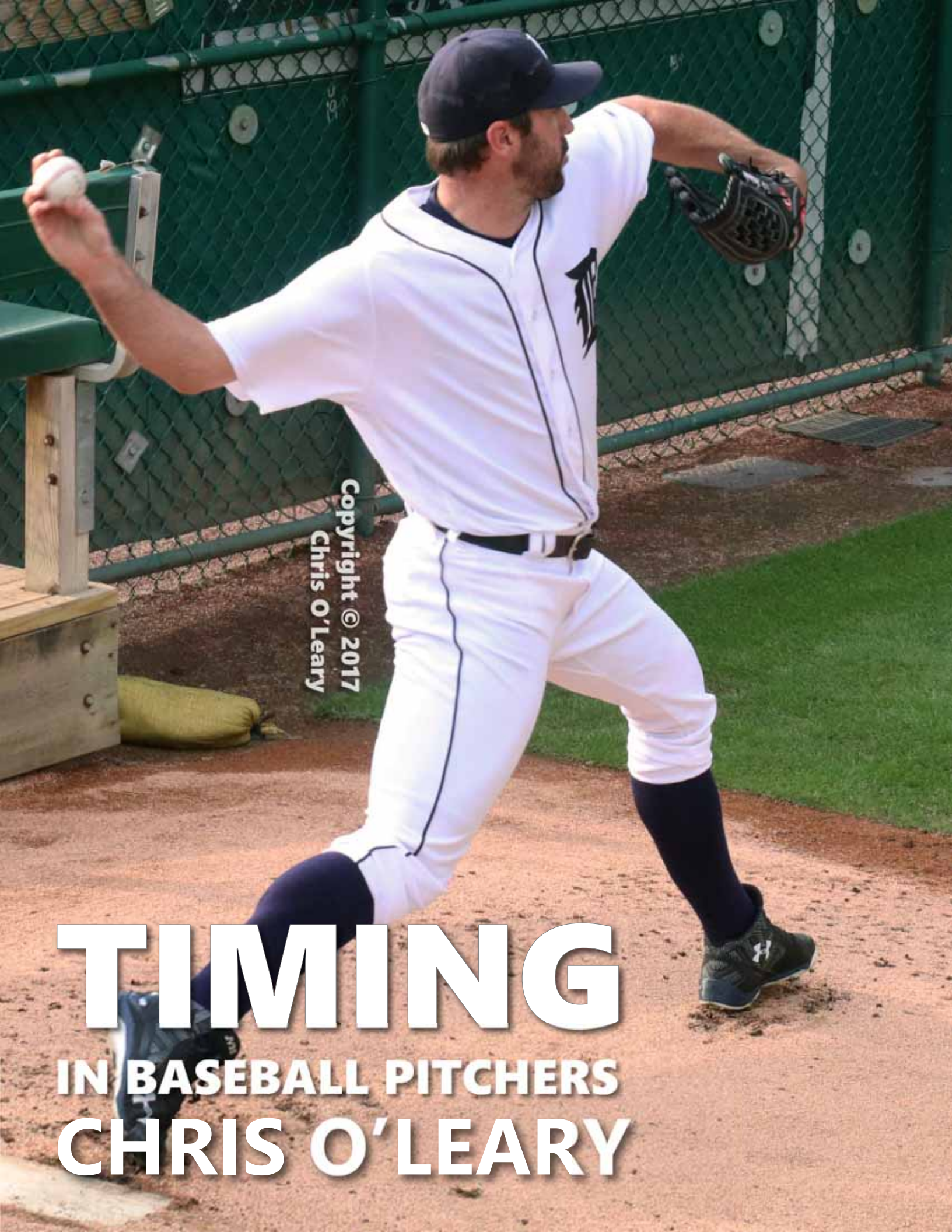
LIKE 1
3:03 PM - 10 May 2017

Chris O'Leary
@thepaiguy

When Matt Harvey breaks again, again it will
be because he didn't fix his pitching
mechanics. Again. Again. Again...
chrisoleary.com/projects/pitch ...



1:31 PM - 18 Jul 2017

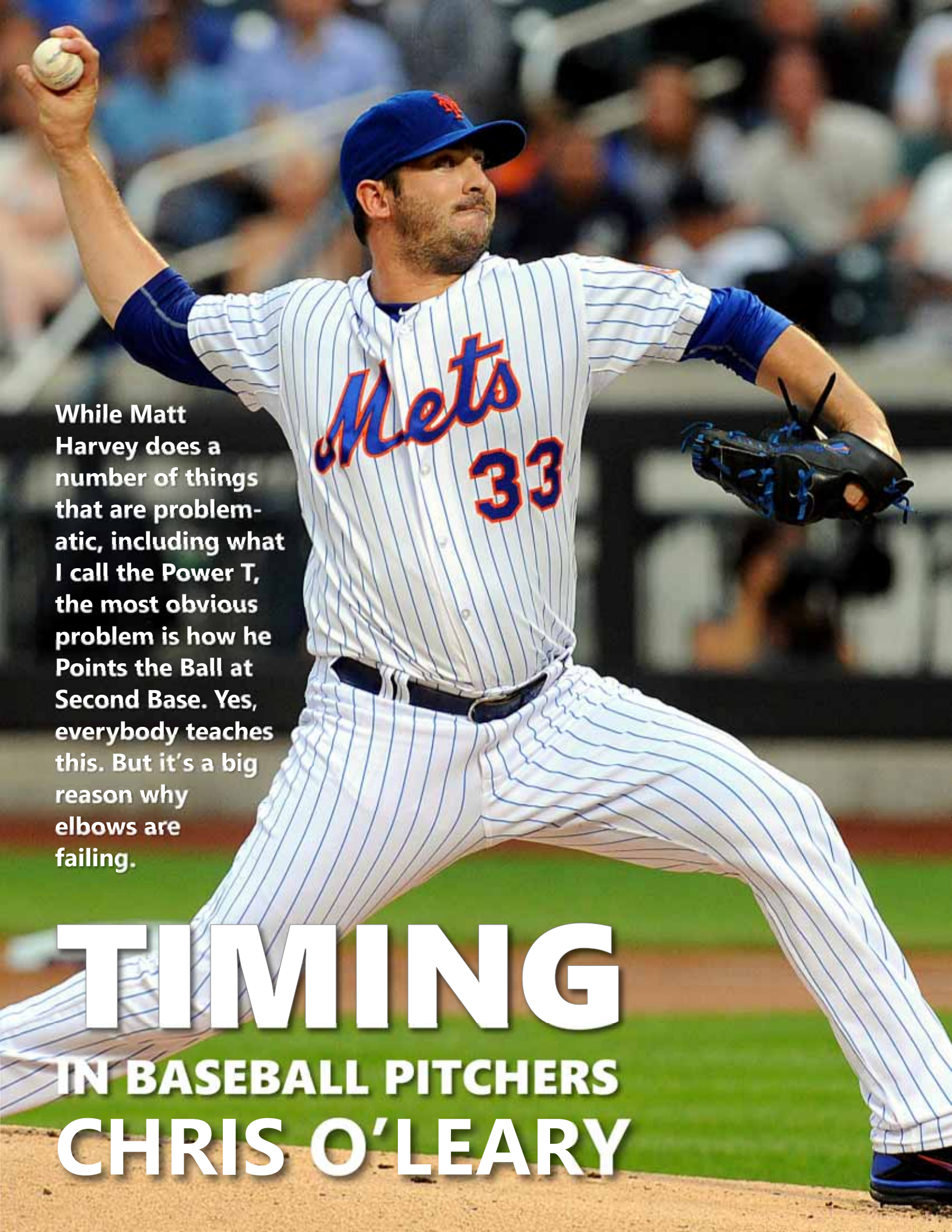


Copyright © 2017
Chris O'Leary

TIMING

IN BASEBALL PITCHERS

CHRIS O'LEARY

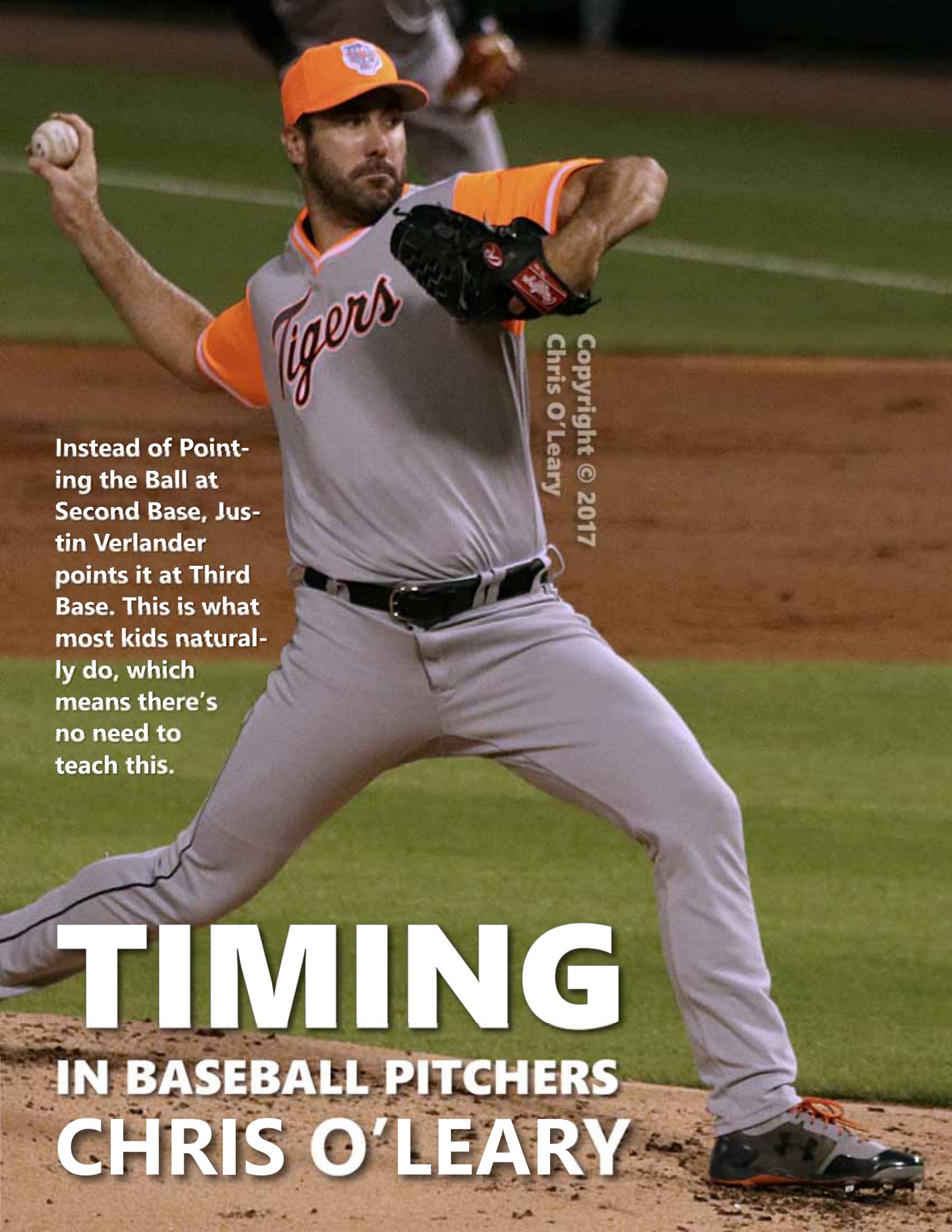


While Matt Harvey does a number of things that are problematic, including what I call the Power T, the most obvious problem is how he Points the Ball at Second Base. Yes, everybody teaches this. But it's a big reason why elbows are failing.

TIMING

IN BASEBALL PITCHERS

CHRIS O'LEARY

A full-page photograph of Justin Verlander in a Detroit Tigers uniform, captured in the middle of a pitching motion. He is wearing a grey jersey with orange sleeves and the word "Tigers" in script, an orange cap, and a black glove. The background is a blurred baseball field.

Copyright © 2017
Chris O'Leary

Instead of Pointing the Ball at Second Base, Justin Verlander points it at Third Base. This is what most kids naturally do, which means there's no need to teach this.

TIMING

IN BASEBALL PITCHERS

CHRIS O'LEARY



The problem with Showing or Pointing the Ball at Second Base is it works by creating a Timing problem; by keeping the pitching arm from getting UP on time. That yields a quick and easy velocity boost in the short term, but overloads the arm and leads to elbow and shoulder problems in the long run.

TIMING

IN BASEBALL PITCHERS

CHRIS O'LEARY



THE EPIDEMIC

Why can't Matt Harvey stay healthy?

Why won't he stay healthy?

While he doesn't employ the Horizontal W or the Inverted W, Matt Harvey is the embodiment of so much that is wrong with modern pitchers and pitching mechanics.

Tommy John Twist

As he goes into Foot Plant, Matt Harvey keeps his fingers on top of the ball and points it at second base.

Terrible T

After breaking his hands, Matt Harvey keeps his fingers on top of the ball and stays long.

Hyperabduction

Matt Harvey points the ball at second base, and then holds that position into foot plant.

That causes his pitching arm to elevate and hyperabduct.

Into/At Foot Plant

Matt Harvey holds all of these problematic positions into foot plant. His pitching arm then externally rotates while he holds that pronated and hyperabducted position, greatly increasing the load on his arm. That first overloaded his elbow and is now compressing and stressing the bones and muscles inside his shoulder. That led to his TOS and will eventually lead to shoulder problems.

www.chrisoleary.com

DO NOT POINT THE BALL AT SECOND BASE

In *The Arm*, Jeff Passan sneers at my contention that Matt Harvey's elbow problems could in any way be related to the way he points the ball at second base into/at foot plant, a problematic movement I call Premature Pronation or, more simply, the **Tommy John Twist**.

It's also the movement that helped me predict Matt Harvey's arm problems. If you take one thing away from this ebook, I hope you remember that Dr. Glenn Fleisig

of ASMI recently came to agree with me that

there is at least no GOOD

reason, and it may in-

deed be a BAD idea, to

teach pitchers and ballplayers to point the ball at second base. As a result, Dr. Fleisig recently advised

USA Baseball to STOP advocating pointing the ball at second base.

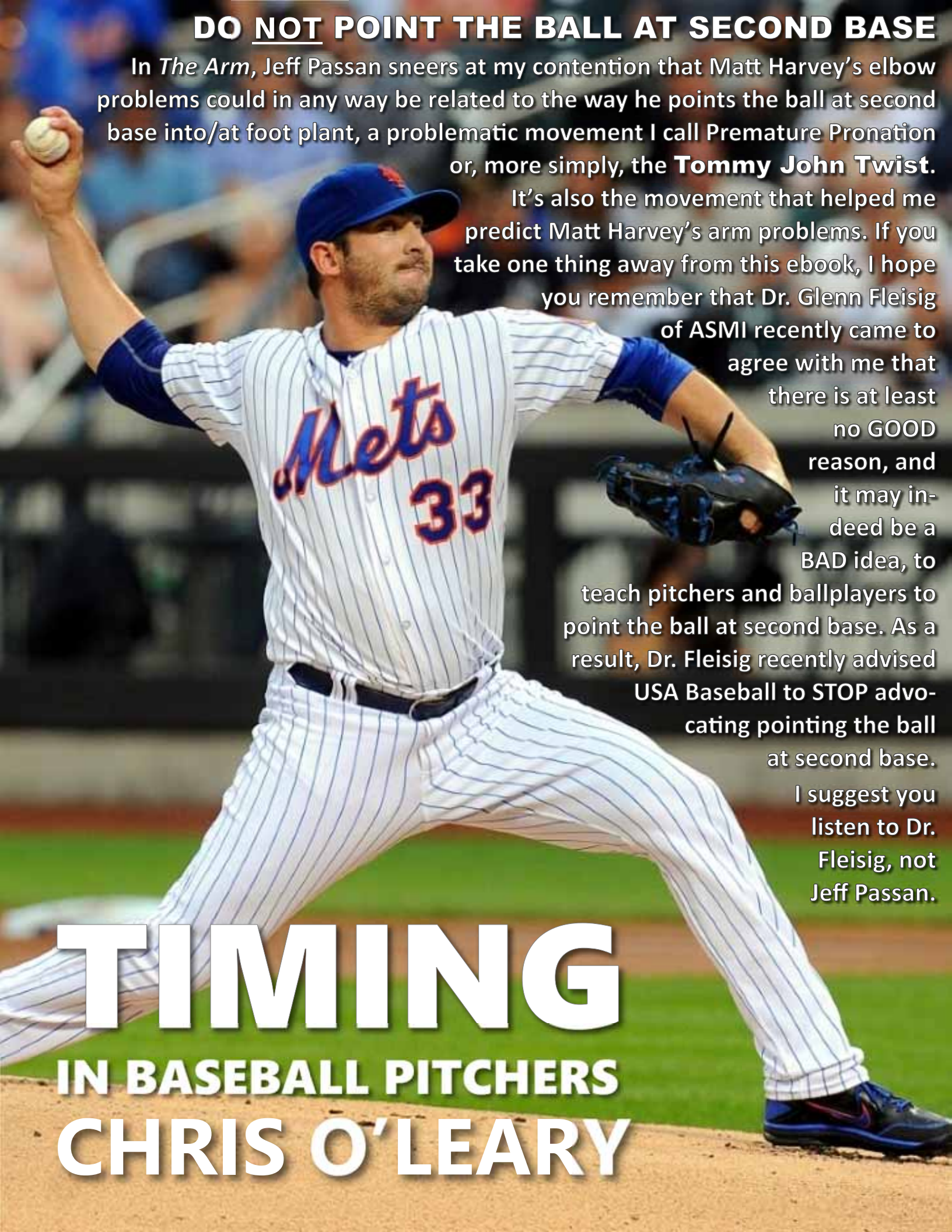
I suggest you listen to Dr.

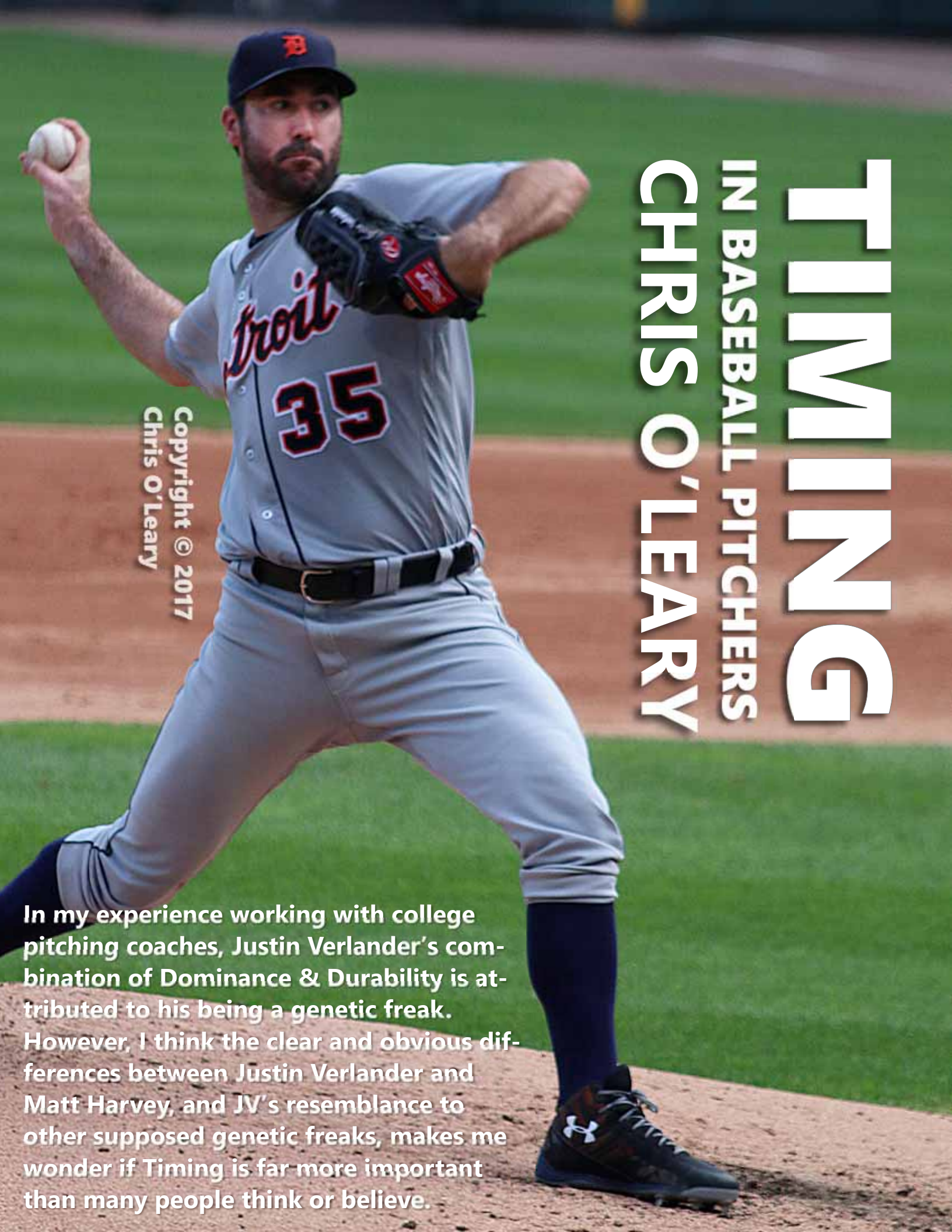
Fleisig, not Jeff Passan.

TIMING

IN BASEBALL PITCHERS

CHRIS O'LEARY



A full-page photograph of a baseball pitcher, Chris O'Leary, in a Detroit Tigers uniform. He is wearing a grey jersey with "Detroit" in red script and the number "35" in red. He is in a pitching motion, with his left leg forward and his right arm extended back, holding a baseball. He is wearing a black cap with a red "D" logo, a black glove on his left hand, and black Under Armour cleats. The background is a green baseball field with a brown dirt infield.

TIMING

IN BASEBALL PITCHERS

CHRIS O'LEARY

Copyright © 2017
Chris O'Leary

In my experience working with college pitching coaches, Justin Verlander's combination of Dominance & Durability is attributed to his being a genetic freak. However, I think the clear and obvious differences between Justin Verlander and Matt Harvey, and JV's resemblance to other supposed genetic freaks, makes me wonder if Timing is far more important than many people think or believe.

Why did Mark Prior break down so often and, ultimately, fail to realize his promise?

I'd ask you to consider what Tom House and his apologists say and then consider a Timing-based theory.

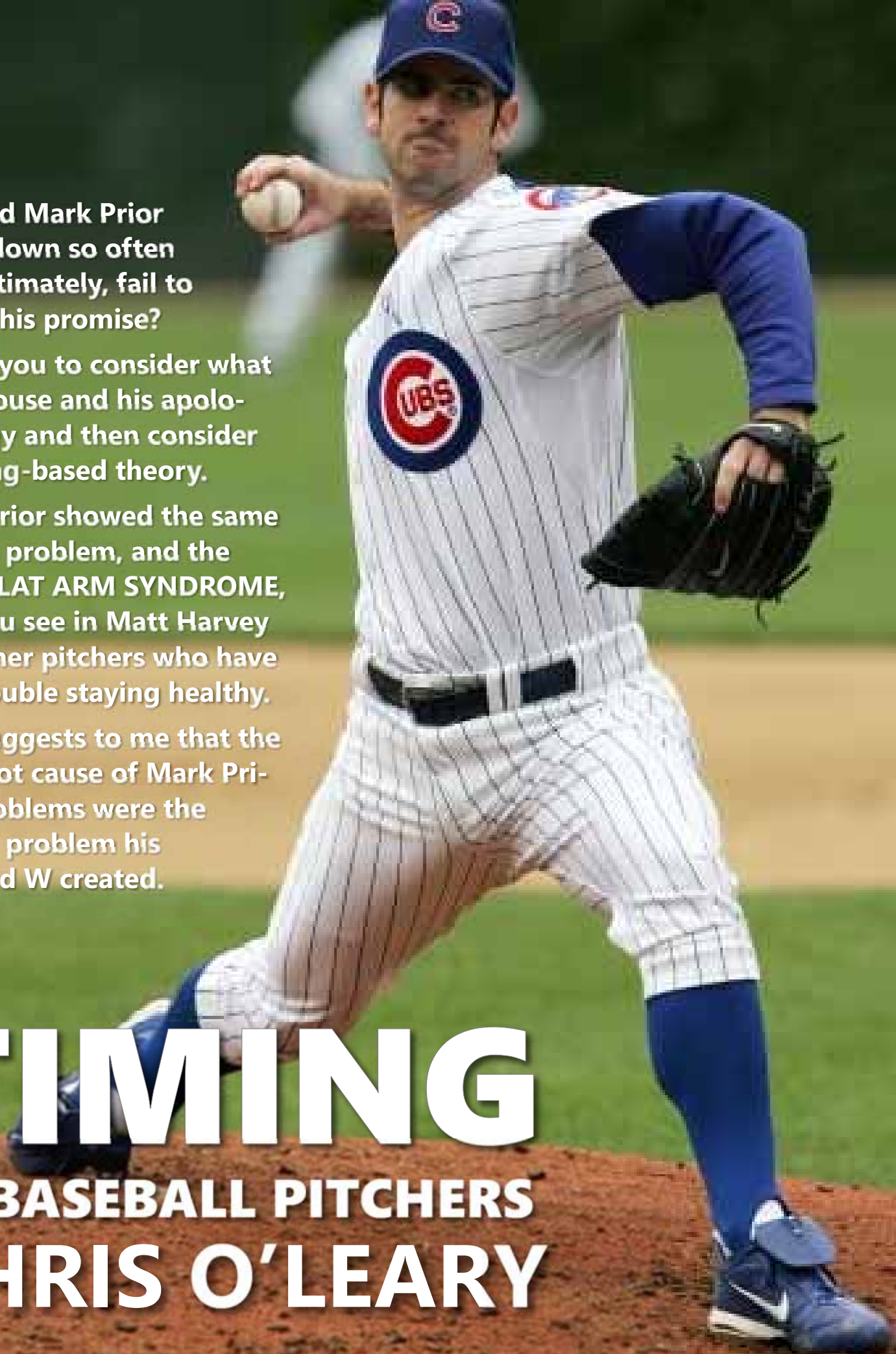
Mark Prior showed the same Timing problem, and the same FLAT ARM SYNDROME, that you see in Matt Harvey and other pitchers who have had trouble staying healthy.

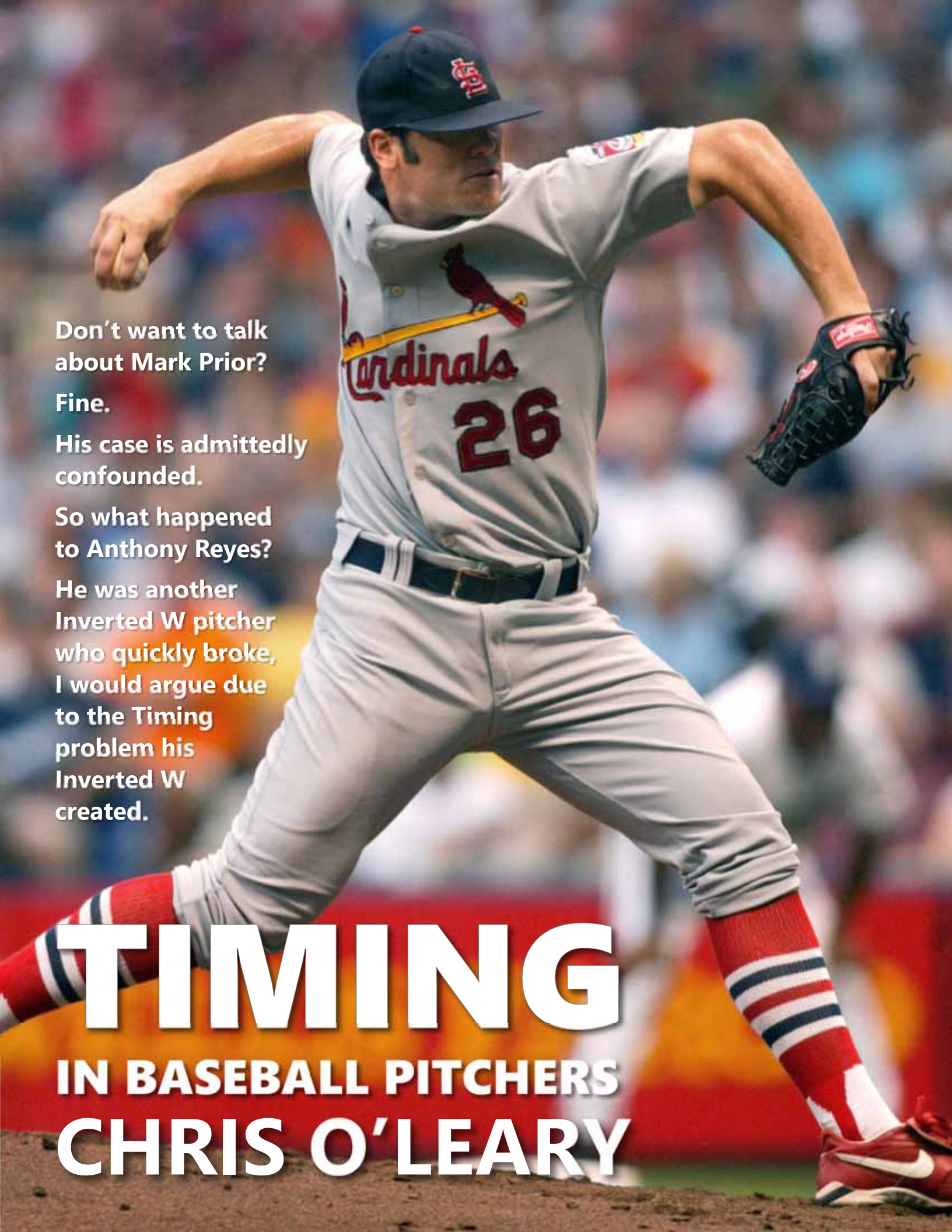
That suggests to me that the true root cause of Mark Prior's problems were the Timing problem his Inverted W created.

TIMING

IN BASEBALL PITCHERS

CHRIS O'LEARY



A St. Louis Cardinals pitcher, wearing a grey road uniform with the number 26 and a red cardinal logo, is captured in the middle of a pitching motion. He is wearing a black cap with the Cardinals logo and a black glove on his left hand. The background is a blurred crowd of spectators in a stadium.

Don't want to talk
about Mark Prior?

Fine.

His case is admittedly
confounded.

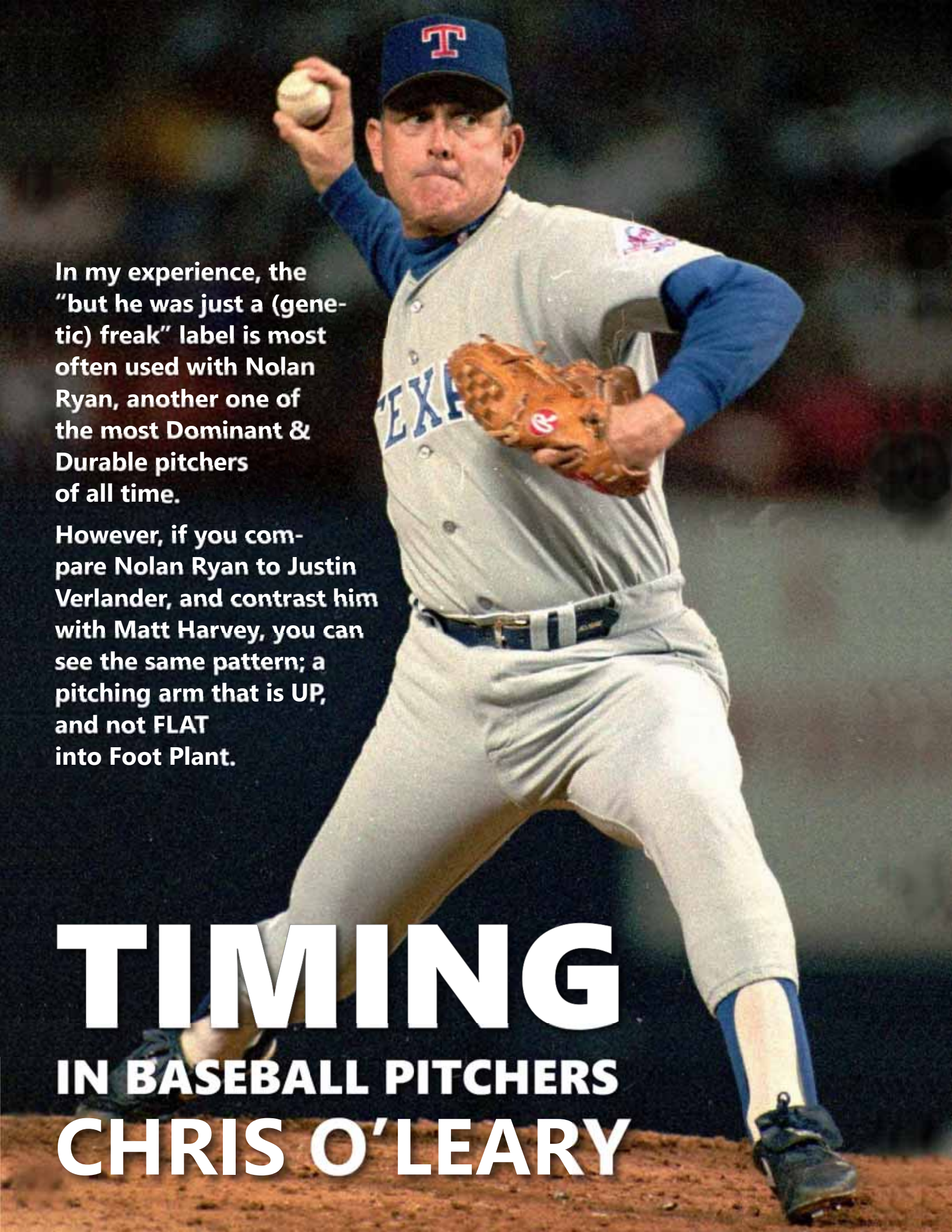
So what happened
to Anthony Reyes?

He was another
Inverted W pitcher
who quickly broke,
I would argue due
to the Timing
problem his
Inverted W
created.

TIMING

IN BASEBALL PITCHERS

CHRIS O'LEARY

A full-page photograph of a Texas Rangers pitcher in mid-throw. The pitcher is wearing a grey home jersey with blue sleeves and "TEXAS" in blue lettering across the chest. He is also wearing a blue cap with a red "T" logo and a brown leather glove. His right arm is raised high, holding the baseball, while his left arm is bent with the glove. The background is a blurred stadium scene.

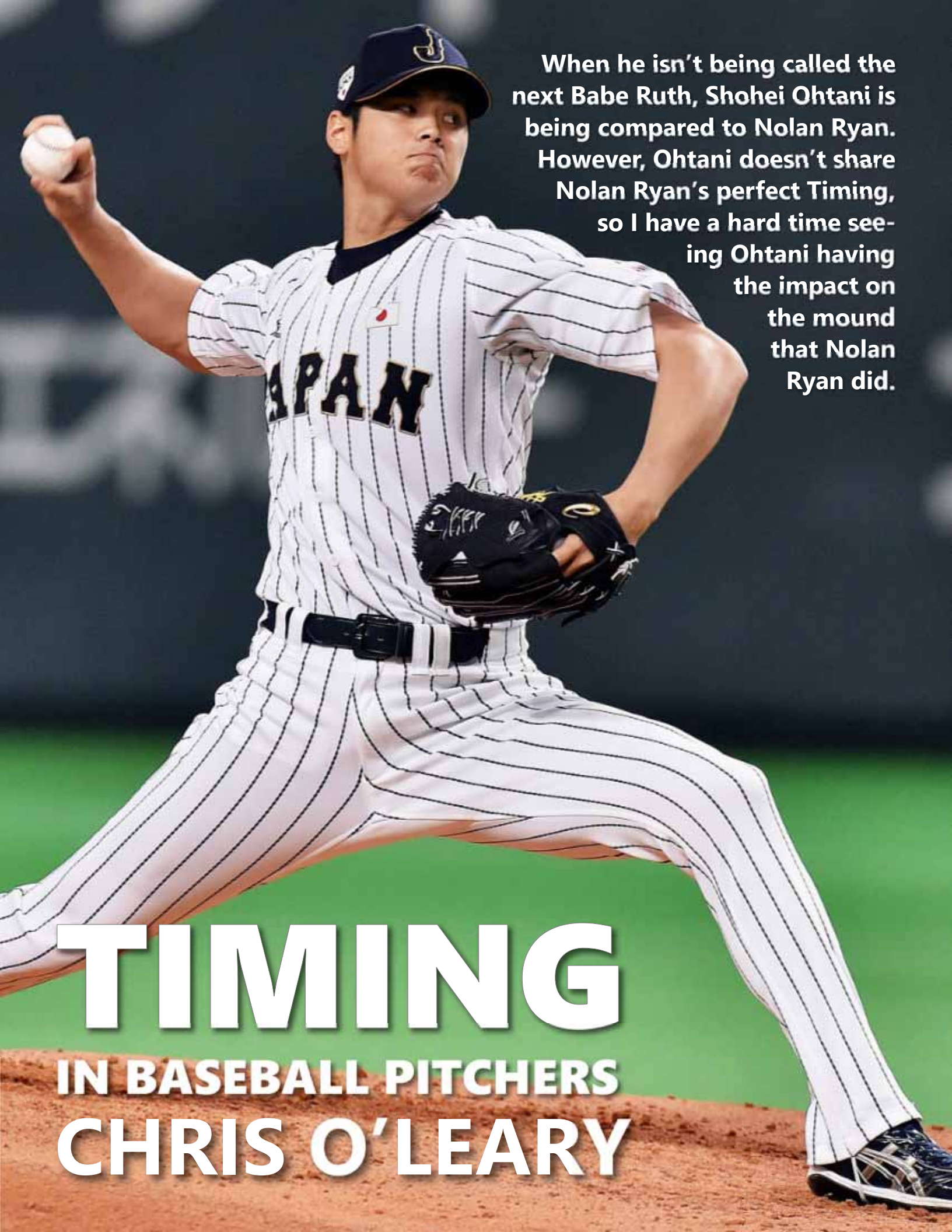
In my experience, the "but he was just a (genetic) freak" label is most often used with Nolan Ryan, another one of the most Dominant & Durable pitchers of all time.

However, if you compare Nolan Ryan to Justin Verlander, and contrast him with Matt Harvey, you can see the same pattern; a pitching arm that is UP, and not FLAT into Foot Plant.

TIMING

IN BASEBALL PITCHERS

CHRIS O'LEARY

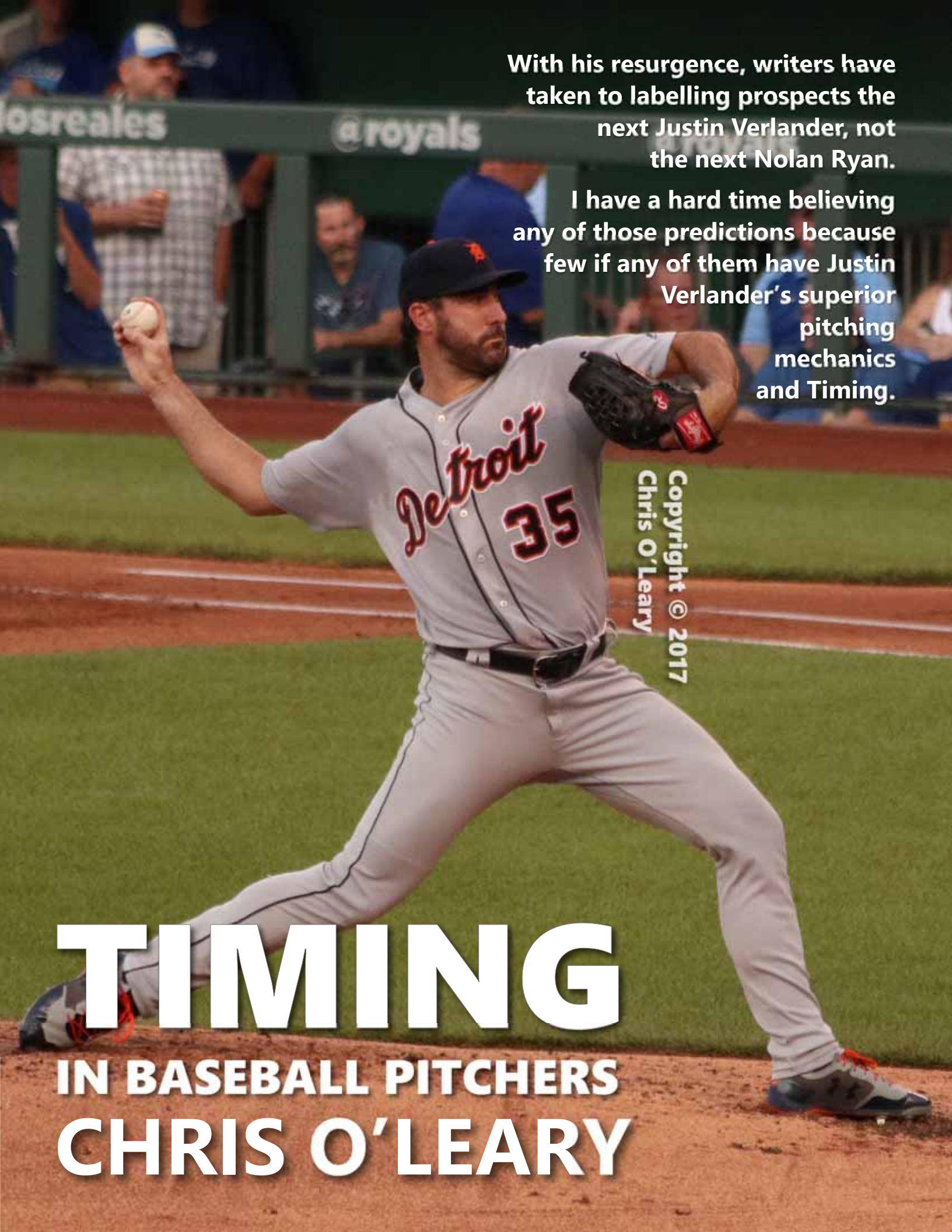
A full-page photograph of Shohei Ohtani in a white pinstriped Japanese national team uniform, captured in a dynamic pitching motion on a baseball mound. He is wearing a dark blue cap with a gold 'J' logo and a black glove. The background is a blurred green field and stadium lights.

When he isn't being called the next Babe Ruth, Shohei Ohtani is being compared to Nolan Ryan. However, Ohtani doesn't share Nolan Ryan's perfect Timing, so I have a hard time seeing Ohtani having the impact on the mound that Nolan Ryan did.

TIMING

IN BASEBALL PITCHERS

CHRIS O'LEARY



With his resurgence, writers have taken to labelling prospects the next Justin Verlander, not the next Nolan Ryan.

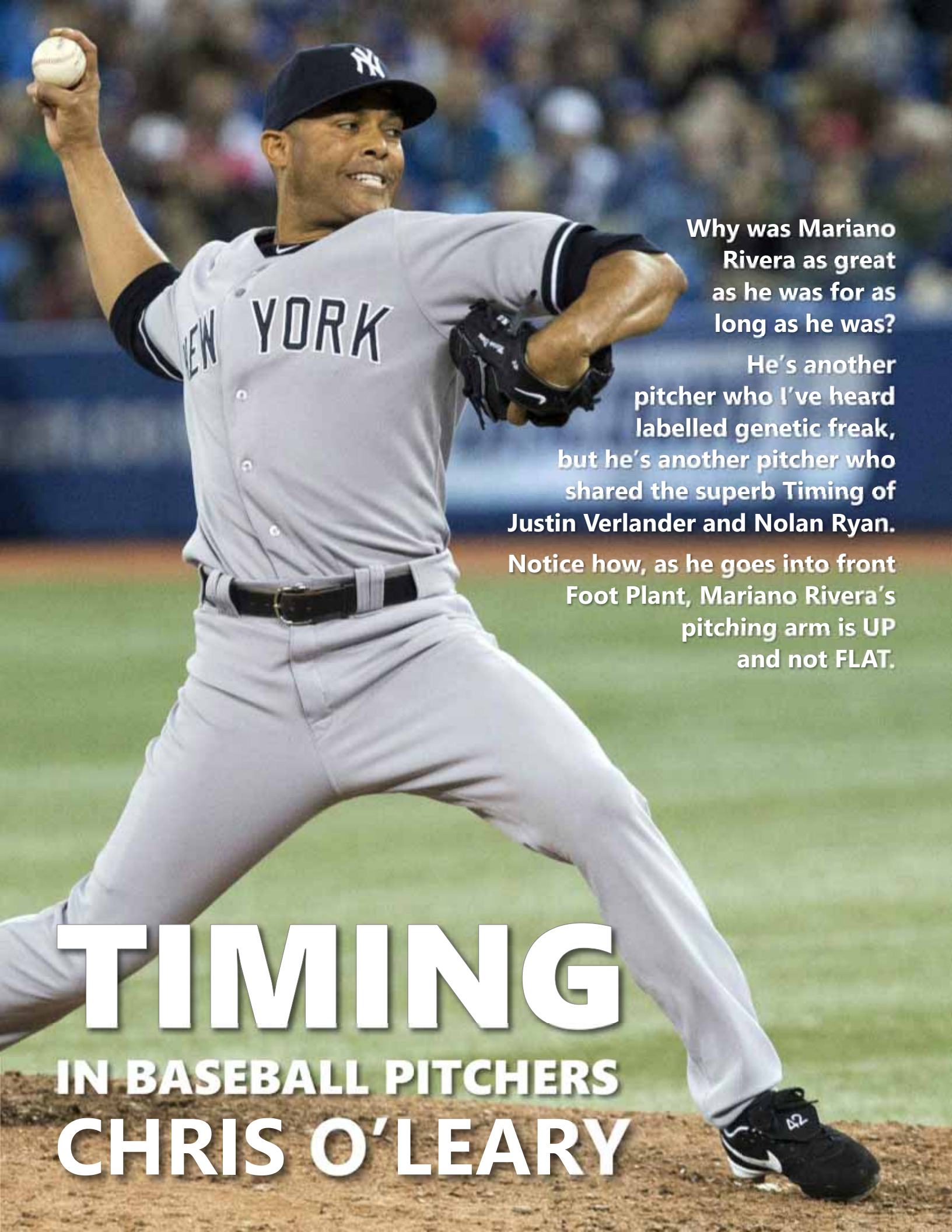
I have a hard time believing any of those predictions because few if any of them have Justin Verlander's superior pitching mechanics and Timing.

Copyright © 2017
Chris O'Leary

TIMING

IN BASEBALL PITCHERS

CHRIS O'LEARY



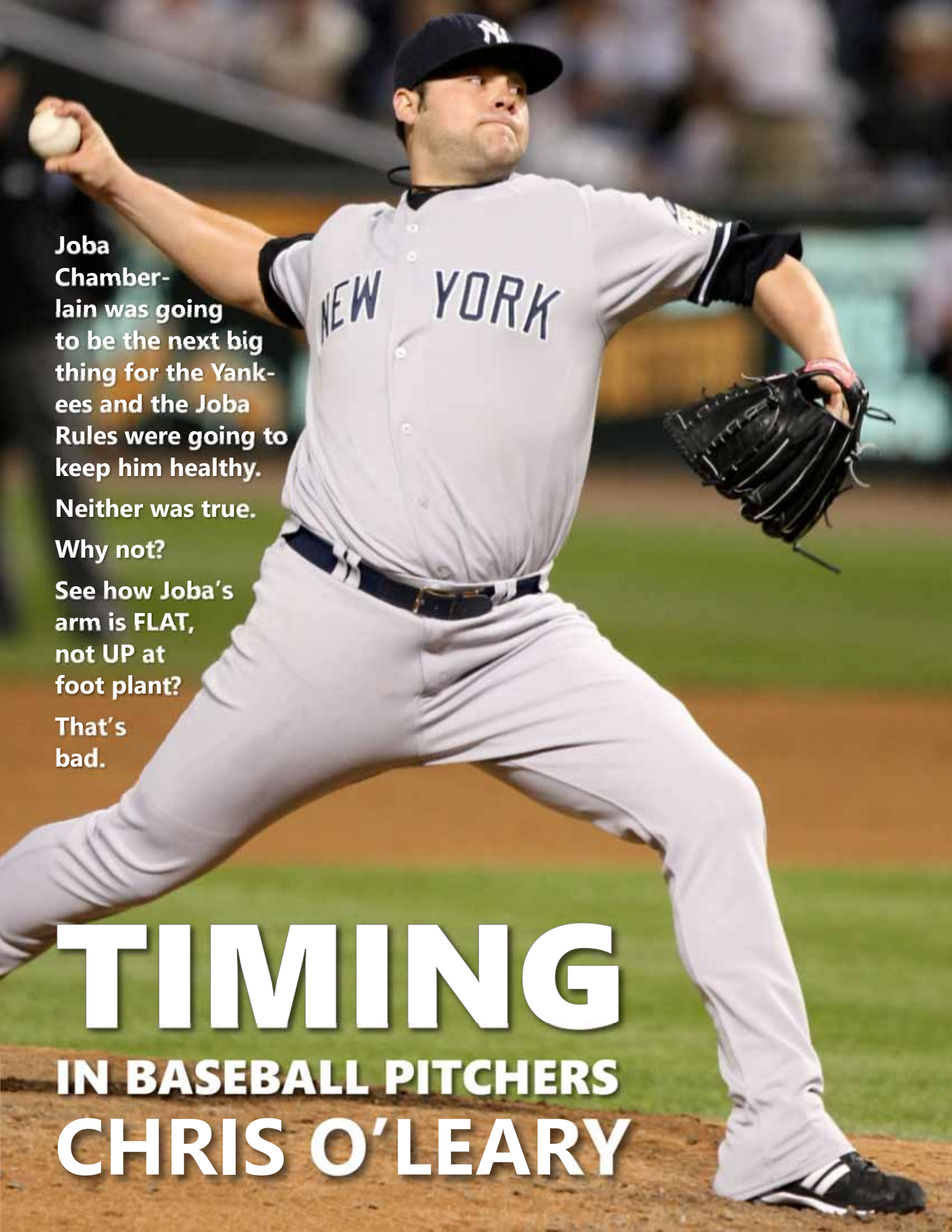
Why was Mariano Rivera as great as he was for as long as he was?

He's another pitcher who I've heard labelled genetic freak, but he's another pitcher who shared the superb Timing of Justin Verlander and Nolan Ryan. Notice how, as he goes into front Foot Plant, Mariano Rivera's pitching arm is UP and not FLAT.

TIMING

IN BASEBALL PITCHERS

CHRIS O'LEARY

A full-page photograph of a New York Yankees pitcher in mid-throw. The pitcher is wearing a white home jersey with "NEW YORK" in blue lettering, white pants, and a navy blue cap with the Yankees logo. He is in a powerful throwing stance, with his right arm extended forward holding the baseball and his left arm back in a black glove. The background is a blurred stadium filled with spectators.

Joba Chamberlain was going to be the next big thing for the Yankees and the Joba Rules were going to keep him healthy. Neither was true.

Why not?

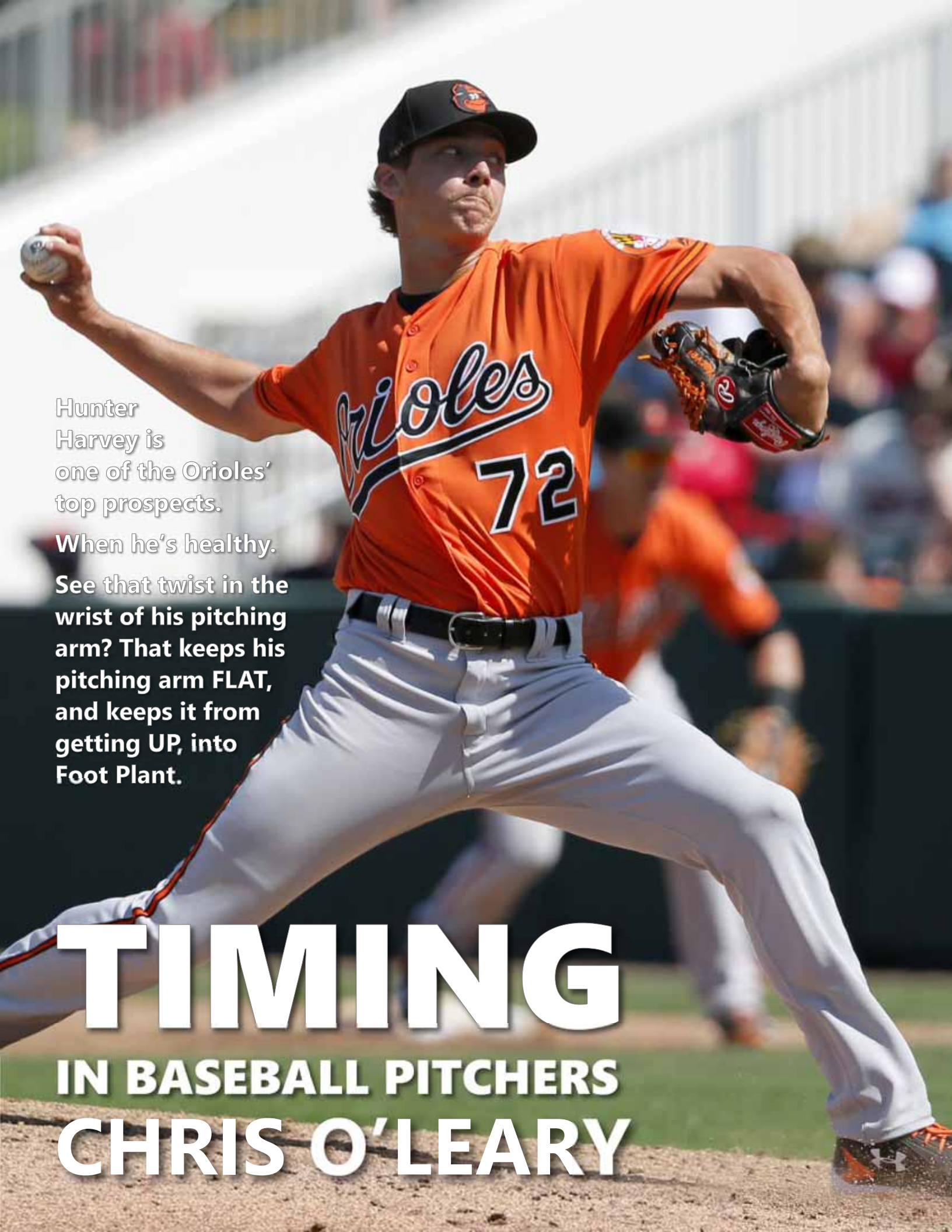
See how Joba's arm is FLAT, not UP at foot plant?

That's bad.

TIMING

IN BASEBALL PITCHERS

CHRIS O'LEARY



Hunter Harvey is one of the Orioles' top prospects.

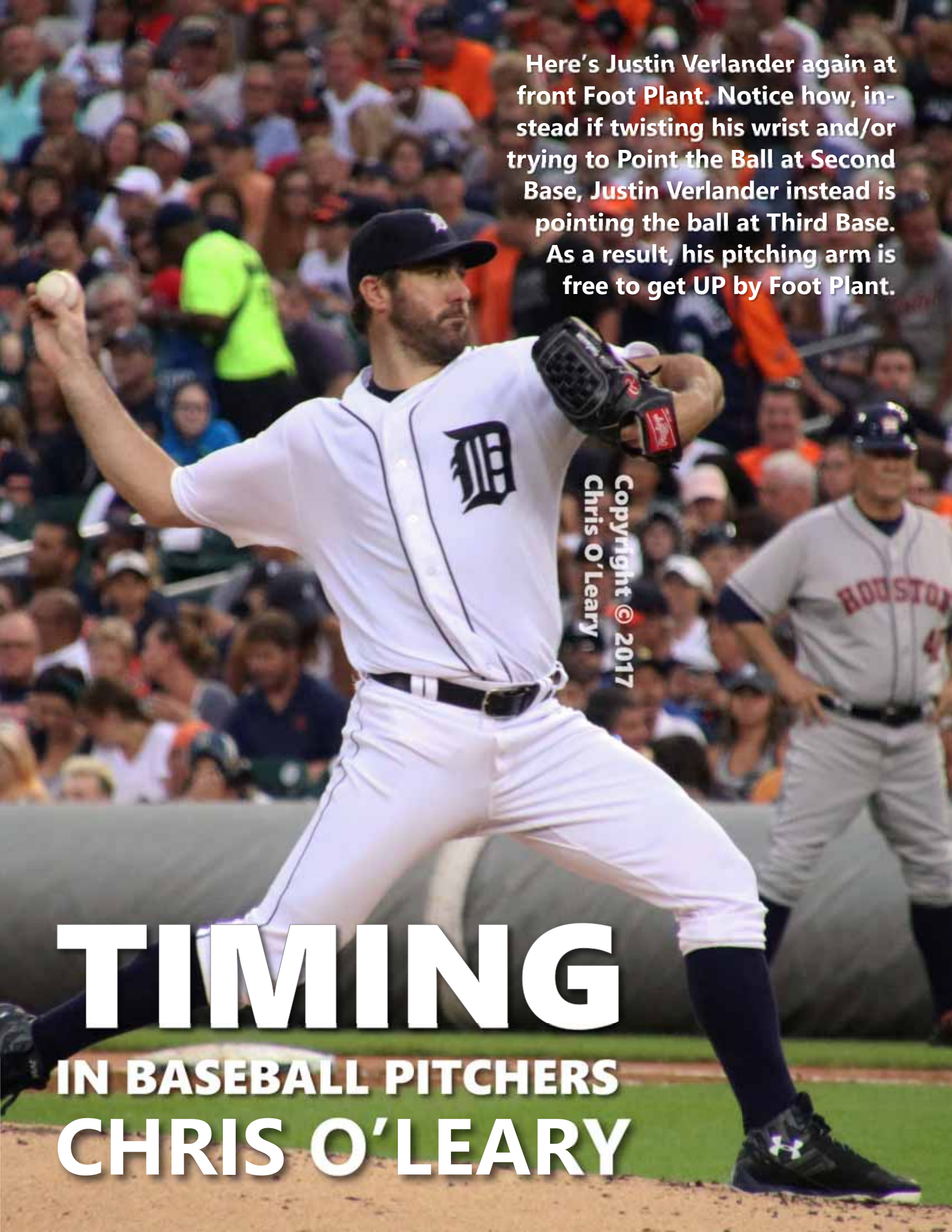
When he's healthy.

See that twist in the wrist of his pitching arm? That keeps his pitching arm **FLAT**, and keeps it from getting **UP**, into Foot Plant.

TIMING

IN BASEBALL PITCHERS

CHRIS O'LEARY

A photograph of Justin Verlander, a Detroit Tigers pitcher, in the middle of a pitching motion on a baseball field. He is wearing a white Detroit Tigers uniform with a black "D" logo on the chest. His right arm is extended forward, holding a baseball, while his left arm is bent and holding a black glove. The background is a blurred crowd of spectators in a stadium. In the bottom right, a Houston Astros player in a grey uniform is partially visible.

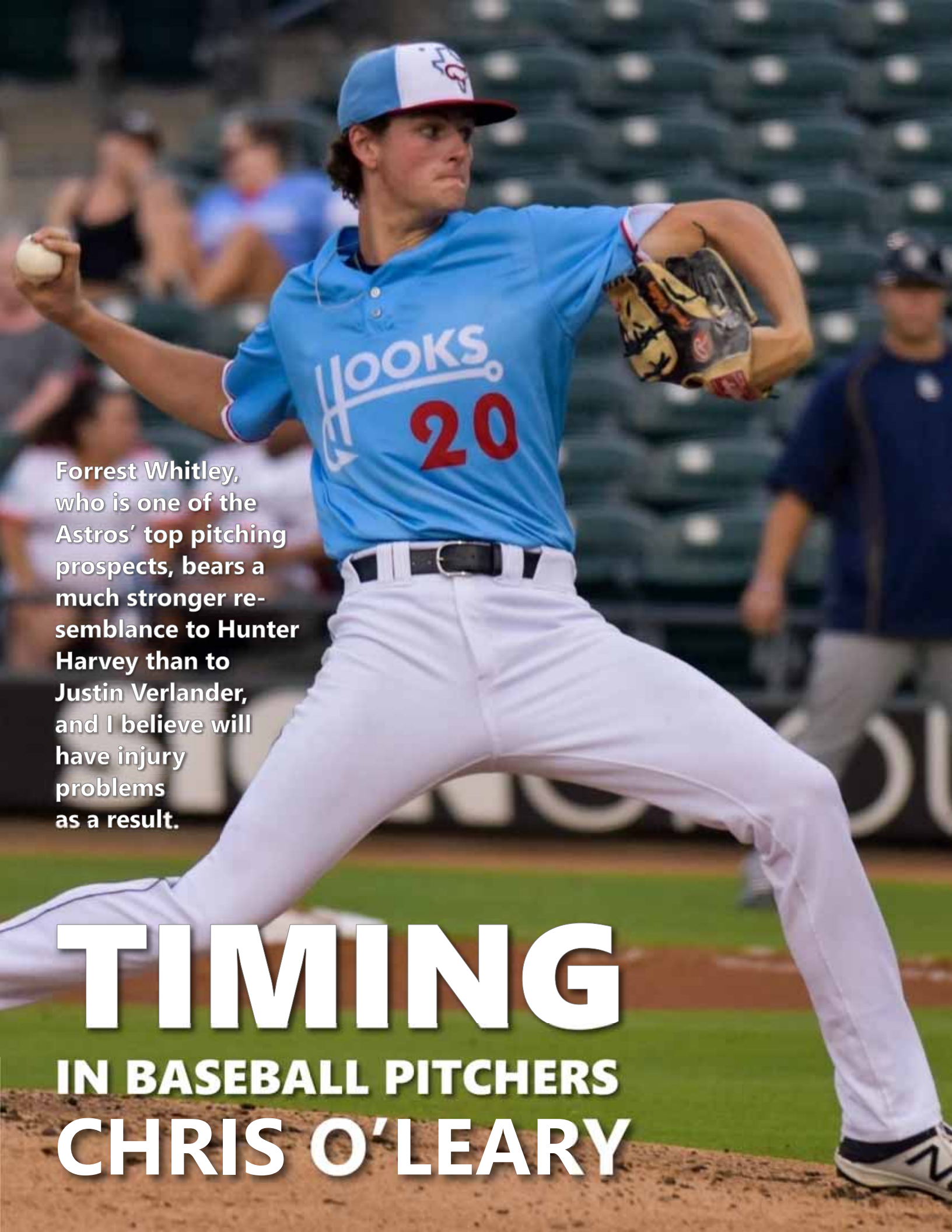
Here's Justin Verlander again at front Foot Plant. Notice how, instead of twisting his wrist and/or trying to Point the Ball at Second Base, Justin Verlander instead is pointing the ball at Third Base. As a result, his pitching arm is free to get UP by Foot Plant.

Copyright © 2017
Chris O'Leary

TIMING

IN BASEBALL PITCHERS

CHRIS O'LEARY

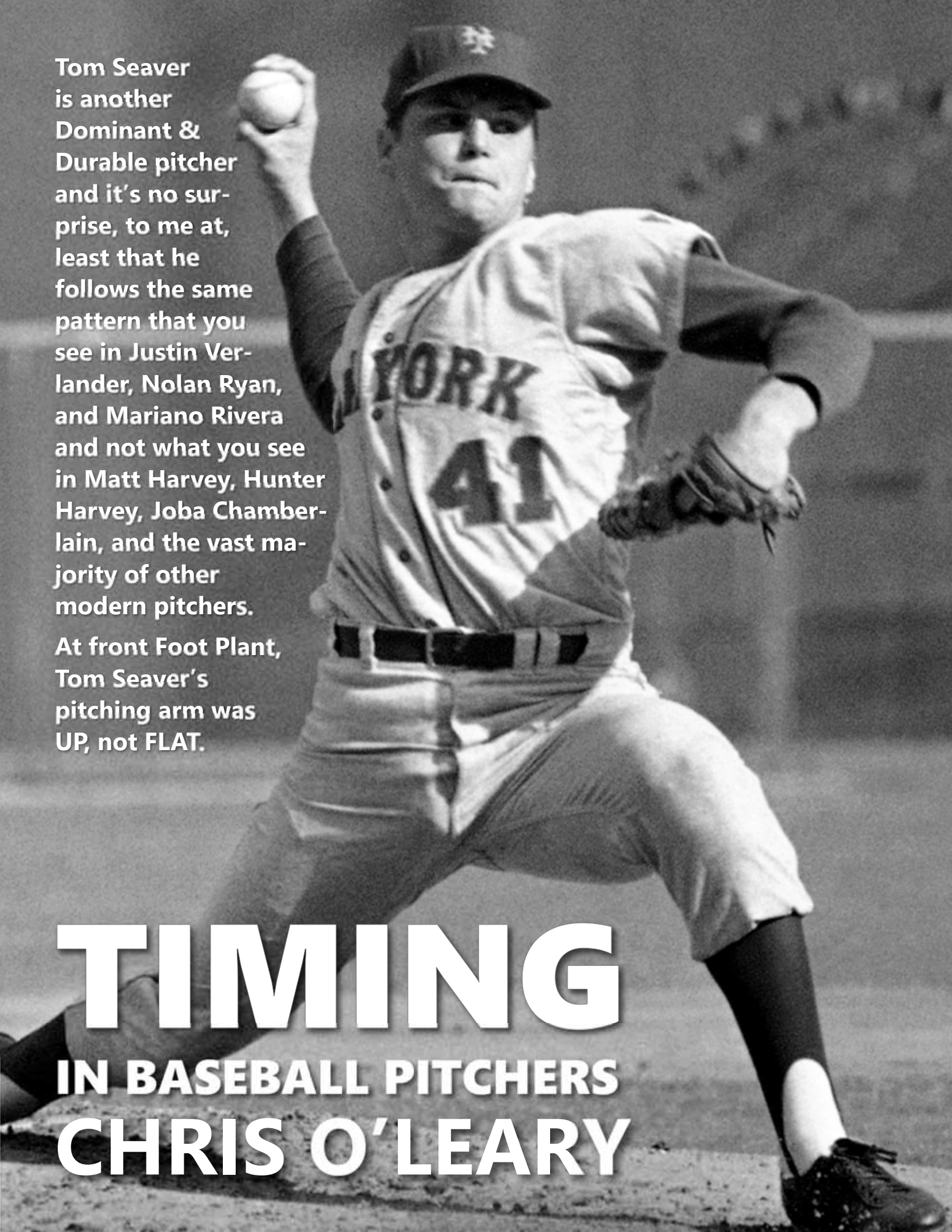


Forrest Whitley, who is one of the Astros' top pitching prospects, bears a much stronger resemblance to Hunter Harvey than to Justin Verlander, and I believe will have injury problems as a result.

TIMING

IN BASEBALL PITCHERS

CHRIS O'LEARY

A black and white photograph of Tom Seaver in a New York Yankees uniform, captured in the middle of a pitching motion. He is wearing a cap with the Yankees logo, a jersey with "NEW YORK" and the number "41", and white pants. His right arm is raised, holding a baseball, while his left arm is extended forward. The background is a blurred baseball field.

Tom Seaver is another Dominant & Durable pitcher and it's no surprise, to me at, least that he follows the same pattern that you see in Justin Verlander, Nolan Ryan, and Mariano Rivera and not what you see in Matt Harvey, Hunter Harvey, Joba Chamberlain, and the vast majority of other modern pitchers.

At front Foot Plant, Tom Seaver's pitching arm was UP, not FLAT.

TIMING

IN BASEBALL PITCHERS

CHRIS O'LEARY

While Sonny Gray rightly know for his very obvious Inverted W, that is NOT why he faces an elevated risk of elbow and shoulder problems.

Rather, the reason why Sonny Gray is a major injury risk is the negative impact his Inverted W has on his Timing.

As this picture clearly demonstrates, Sonny Gray's Inverted W keeps his pitching arm from getting UP on time. Instead, at front Foot Plant, Sonny Gray's pitching arm is relatively FLAT. That likely helps him throw harder, but it does so by over-loading his arm.

A photograph of baseball pitcher Sonny Gray in mid-pitching motion on a mound. He is wearing a dark green Oakland Athletics jersey with yellow piping and the 'A's' logo, white pants, a green cap, and a brown leather glove. His right arm is extended forward and slightly flat, while his left arm is bent with the glove. The background is a blurred green field.

TIMING

IN BASEBALL PITCHERS

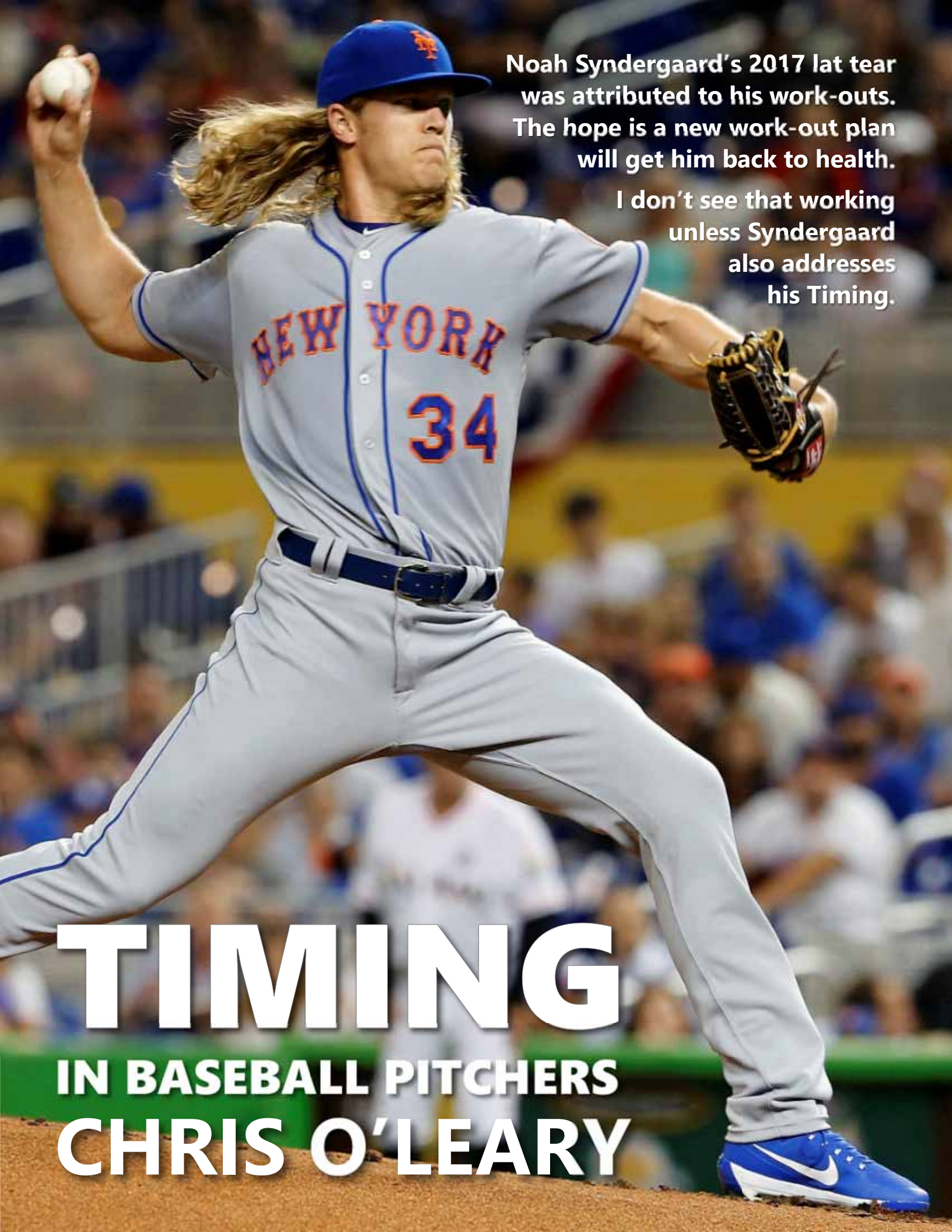
CHRIS O'LEARY

TIMING

IN BASEBALL PITCHERS
CHRIS O'LEARY

Copyright © 2017
Chris O'Leary





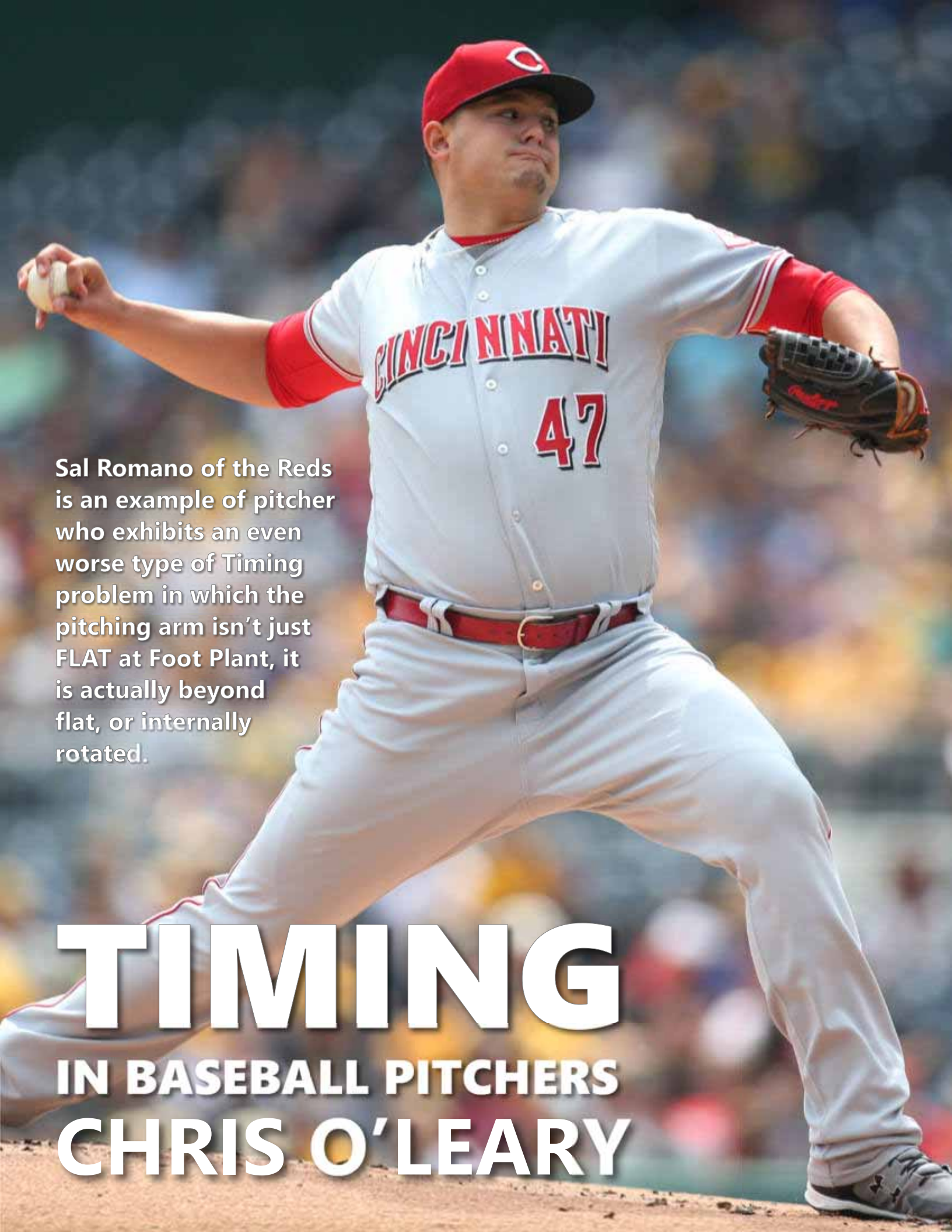
Noah Syndergaard's 2017 lat tear was attributed to his work-outs. The hope is a new work-out plan will get him back to health.

I don't see that working unless Syndergaard also addresses his Timing.

TIMING

IN BASEBALL PITCHERS

CHRIS O'LEARY

A photograph of a Cincinnati Reds pitcher, Sal Romano, in the middle of a pitching motion. He is wearing a white home jersey with "CINCINNATI" and the number "47" in red. He has a red cap with a white "C" and a red belt. His right arm is extended forward holding the ball, and his left arm is back in a glove. The background is a blurred stadium crowd.

Sal Romano of the Reds is an example of pitcher who exhibits an even worse type of Timing problem in which the pitching arm isn't just FLAT at Foot Plant, it is actually beyond flat, or internally rotated.

TIMING

IN BASEBALL PITCHERS

CHRIS O'LEARY