Moral and Ethical Considerations for the COVID-19 Vaccines
Dr. Patrick Herrick

Bishop Johnston: Well hello, everyone. It's good to be with you today. You know we begin a new year with a lot of hope, but we also realize we still have many challenges ahead of us. Especially in the area of health. This past year has certainly been marked by a lot of anxiety, lots of challenges surrounding the COVID virus. We are all aware of that. But, towards the end of last year, we got a ray of hope from the medical community when we found out about the breakthroughs with several vaccines that have proven highly effective. One from Pfizer, one from Moderna and several others coming along. And so, many people are anticipating the roll out of those vaccines to begin really a wholehearted diminishment of the plague of COVID-19. These vaccines are interesting because they come from various sources, not only companies but scientific technology, and there have been a lot of questions raised already around many aspects of the vaccine. In anticipation of the vaccine being available to so many people, not only in the United States, but around the world, the Church has weighed in on this availability and whether or not a Catholic can receive it because there are ethical, moral and medical questions surrounding these vaccines. The Holy See as well as the United States Catholic Conference and the Missouri Bishops have issues statements around the vaccine and that it is morally acceptable to receive it, but there are still some questions around it for some people. Many have already determined that they will receive the vaccine, and some already have, others are still sort of discerning what they are going to do. So, the reason we're here today is to try to address some of those remaining questions that some people have. I'm going to have a couple of these interviews with experts in both the medical field, but also in the moral/ethical field, to try to anticipate as many questions as remain out there for the faithful. I hope this will be helpful to so many of you.

This morning, I have with me Dr. Patrick Herrick who is a local Catholic physician. He's a family physician and Olathe Health Family Medicine. He has a PhD in Biomedical Engineering and is a founding board member of the Kansas City Catholic Medical Association. He's a faithful advocate of Orthodox Catholicism. He's a true believer and is practiced in medicine. Including he's a staunch defender of the right to life, natural family planning and the rights of Catholic conscience in health care.

Dr. Herrick, I know you did some extensive reading recently to receive more information yourself around the vaccines. We're eager to hear what you've learned and your thoughts on some of the health related considerations for the new COVID-19 vaccine. So, welcome and thank you for being available to answer some of these questions.

Dr. Herrick: Thank you, Bishop.

Bishop: We're gonna get right to it. The first question I want to put to you, Dr. Herrick, is – None of the vaccine trials were designed to detect a significant reduction in hospital admissions, ICU admissions, or death. How would you respond to that?

Dr. Herrick: The trials were geared around finding an intermediate end point. So sometimes with trials like, for example, with cholesterol meds, they will do a trial to see what happens to the cholesterol with this medicine and it takes years to figure out if people live or die from lowering their cholesterol. Sometimes in an emergency, a national emergency, a world pandemic there's not time to wait for those things that take longer to figure out. It could be months, potentially even longer, to see the effects of a vaccine on death for example. But, they did in these trials measure how many people got COVID

symptoms, how many people got a positive COVID test. And those were significantly reduced with both of these vaccine trials.

Bishop: Thank you. The vaccine trials used an undependable test for confirmation of coronavirus disease. That's what some people are stating.

Dr. Herrick: Yes, you're referring to the Wodarg/Yeadon petition against Pfizer. It's making its rounds on the internet and to help interpret this I spoke to a member of the local Catholic Medical Association, Dr. Sam Caughron. Sam and his wife, Erin, are members of Good Counsel Parish and the father and mother of 13 children so they are very faithful Catholics. He said that the Wodarg/Yeadon petition is full of inaccuracies and misleading technical calculations. At one point Wodarg and Yeadon cite as evidence the NFL. Not exactly what we look to as our first source of medical evidence. You know, we look to the NFL for a lot of things, but probably not for medical evidence. Dr. Caughron states that as an analytical test, PCR test, the kind of test that many of us have had for COVID, and what were used in the trials, at least in their analytic capacity, have a zero percent false positive rate.

Bishop: Ok, that's significant, then.

Dr. Herrick: That's right.

Bishop: Yeah. Ok. Here's another question that sometimes emerges. Isn't is possible exposure to COVID after the vaccine will cause a severe immune reaction and potentially even death?

Dr. Herrick: You're referring to the concept of antibody dependent amplification (ADA), which is a possibility with some viruses and immune reactions to them. Dengue Fever, for example. If that were happening with these vaccines, you would have seen it in the trials. It's a fairly quick effect and there were no deaths reported in the vaccine recipients in the trials. On the other hand, for example in the Pfizer trial, there were eight cases of COVID in the vaccine recipients and 162 among the placebo recipients, so unless somehow the vaccine recipients somehow encountered 95% less COVID exposure than the placebo recipients, there was a significant effect of the vaccine. So, these people were exposed to the virus, yet they didn't die, then didn't get that ADA effect.

Bishop: Ok, well, I know that others are concerned about perhaps severe allergic reactions. Is that something also that ought to be considered? The number of people. What do you know about that?

Dr. Herrick: This is something that has made the press recently and there is, like any medicine, there can be allergic reactions. There have been some severe allergic reactions to at least one of the COVID vaccines, probably both. It's to an inert ingredient, it's not actually to the spike protein itself. It might be to an ingredient called polyethelene glycol, but the rate is very low. It's only 11 out of every million recipients so this is in the range of what happens with other vaccines, just 11 out of a million. When you rate that against the risk of COVID itself, it compares quite favorably.

Bishop: Is that similar to the question I sometimes get when I go to get my flu shot, they ask "are you allergic to eggs?" Isn't that similar? It's not to the actual vaccine, it's to the inert ingredient that it's sort of in.

Dr. Herrick: Yes.

Bishop: Ok. It's very similar to that.

Dr. Herrick: Yes, and these allergic reactions are treatable.

Bishop: Ok. Here's another one that I've gotten. I know a young couple, who I recently had their wedding this past year, and the family was asking me about whether this could cause infertility. They're hoping to begin having children and so questions also emerge about whether or not the COVID vaccine might cause infertility in either a man or a woman.

Dr. Herrick: This is something that is very close to my heart as a Catholic physician. I have wanted to cooperate with God's plan for fertility and in that regard I supported Natural Family Planning in my 25 years of medical practice, and so it's an important thing when someone alleges that a medicine will cause infertility, particularly you're concerned about people who have maybe never had a child before. The allegation, as far as I can tell, stems in a resemblance of the spike protein of COVID vaccine to a protein found in the human placenta. The placenta of course is the life support unit for a fetus. There's 127 amino acids in the spike protein and as best I can tell the similarity is in eight amino acids. So we're talking about less than one percent of the spike protein. The immune system's very specific. It's not going to cross-react against something that's only one percent similar to the spike protein. Also, in the immunology and rheumatology text books, it states quite strongly in a couple of areas that viruses do not result in what they call molecular mimicry. This is when an infectious agent mimics a human protein, for example. It's something we know happens in rheumatic fever, when people get strep they can get rheumatic fever where your immune system reacts against the strep then causes friendly fire against things like the heart. However, that's never been shown to happen for viruses and one of the reasons is that the cells that process viral antigens tend to process smaller bits, only about eight amino acids long. That's probably why, just on a theoretical basis, I'm not an immunologist, you don't see that molecular mimicry. The other point is, if the spike protein causes infertility, we probably would have already seen that in the victims of COVID disease, who get exposed to the spike protein naturally.

Bishop: Interesting, so with millions of people being infected with the virus itself that hasn't emerged is what you're saying as a potentially dangerous part of this.

Dr. Herrick: Right. A number of things have emerged, but not infertility.

Bishop: Ok, ok. Very good. Well thank you, thanks for that. I know that's on the minds of especially a lot of the younger people that might be considering the vaccine. Ok, Dr. Theresa Deisher got on the Patrick Coffin show recently and alleged that the RNA of COVID vaccines could inert into our own DNA. Now, as I'm reading these questions, I realize I need to go back and brush up on my biology. There's a lot of letters in there … RNA, DNA … but this was evidently something that was raised by another doctor. Could you maybe break that down for us?

Dr. Herrick: Yes, yes. So, we live in a complicated world, and there are a lot of biological facts we're trying to sort through in this, and Dr. Deisher is a respected person in the vaccine world, but this allegation doesn't really hold water because for this to happen there has to be a way to translate the RNA of the Moderna and Pfizer vaccines into DNA. DNA would be what would insert into our own genes, and for that to happen you need to have an enzyme called reverse transcriptase. Reverse transcriptase only occurs in retroviruses. I know you're not a retrovirus, Bishop, and I'm not a retrovirus, either, so we don't have that enzyme.

Bishop: Maybe this is breaking it down a little bit more, but could you review again for us, doctor, right now, since we've used these terms already a little bit – DNA and RNA. What's the difference in layman's terms, between those two terms?

Dr. Herrick: In human beings and other mammals, DNA is what's in our cell nucleus. It's the programming for what our cells do and how they do all the amazing things that happen in life. They're like the blueprint. And those blueprints have to be translated into RNA. RNA is an intermediate molecule between DNA and protein. So, then the DNA gets translated into RNA, that's a one direction process in human cells, then RNA gets translated into proteins which make up much of our body. There are certain viruses that carry DNA and there are certain viruses that carry RNA. The coronavirus carries RNA. There are some RNA viruses that can translate backwards so to speak, the RNA into DNA, that's a bit of an exception to what our cells do, however coronavirus is not one of those viruses.

Bishop: Ok, alright, that's helpful. RNA, we just talked about it, is a potent immune stimulant. People are worried that can cause autoimmune disease, an attack against self. That's one of the arguments.

Dr. Herrick: This was something that I was initially concerned about because RNA vaccines are a new thing. There's never been RNA vaccines before. So, I bought $700 worth of immunology and rheumatology text books, I searched the national library of medicine twice, I read the New England Journal articles on COVID vaccine. I read all of these articles twice, I took notes, and after about 13 hours of study, I decided I was totally comfortable with receiving either the Pfizer or the Moderna vaccine and did so nine days ago. There's several reasons why this concern about RNA stimulating the immune system should not be a problem with these two vaccines. RNA is a potent immune stimulant, but one thing about the immune system and other parts of the body is it's highly compartmentalized, and the cells that receive injected RNA in muscle are not the kind of cells that will excite your own white cells to react against yourself. And also, the types of proteins that cause autoimmune disease, there's something a little bit inflammatory about them. Not all proteins do that, in fact only about one percent of proteins can really trigger autoimmunity. The other thing is that in the COVID vaccines, it appears that the spike protein is present after injection only a short period of time and then it rapidly disappears. When RNA is not present in the body for a long time, it's less likely to cause autoimmunity. In investigating these questions, I emailed someone who appears to be one of the world's foremost experts on RNA and autoimmunity, Argyrios Theofilopoulos of the Scripps Institute in La Jolla, and he said the RNA in vaccines is highly unlikely to trigger autoimmunity.

Bishop: Ok, so this was one of the things you were concerned about and decided to sort of go to the top experts. Another concern, Dr. Herrick, that some people have is just with the pharmaceutical companies themselves who have developed these vaccines. They're big corporations, some of them have been involved in research that has been morally questionable perhaps, around some of the background on their research, some of their methods perhaps, so there's concern. Do we really trust big pharma to do the right thing? So there's just a question sort of around maybe the corporations, these big medical companies, or the pharmaceutical companies that have developed the vaccines. Any thoughts on that?

Dr. Herrick: One thing I find a little paradoxical is the concerns about this appear to be coming from conservative websites. Being a conservative myself, I believe in free enterprise, and I thought we believed in free enterprise. The other thing is that these vaccines were developed in record time under the leadership of a conservative president and sometimes I think we forget that. I've become convinced that RNA technology is potentially the wave of the future. They're not only developing these vaccines against COVID, they're working on vaccines against Zika, remember the virus that causes birth defects.

They're working on a vaccine against RSV which a lot of people have experience with in their children. They're even working on RNA injections that would immunize our own bodies against cancer, and potentially treat heart failure, so it could be revolutionary.

Bishop: So this is really a relatively new technology in the pharmaceutical medical field, that is just sort of in the first or second inning, to use a baseball analogy. Is that right?

Dr. Herrick: This is new technology which leads to the questions, and I hope to try to answer those today.

Bishop: Ok, ok. Some people also raise questions or skepticism around "are COVID vaccines really that effective?"

Dr. Herrick: One of the things I saw on some of the blogs was that they seized upon a phrase in the studies of COVID vaccines that said the studies were designed to find a vaccine that was 50 percent effective or better. It's good to know that's the minimum bar they set, but what they actually found was the vaccines in the Pfizer trial was 95 percent effective, only eight people got COVID who received the vaccine versus 162 placebo people got COVID. In the Moderna trial, it was 94 percent effective, very similar to 95, 11 cases of COVID in the vaccine recipients versus 185 in the placebo circles.

Bishop: And I've heard that just with the flu vaccine that we get every year, that's down around 50 or 60 percent, so it's quite a bit less than the effectiveness of this vaccine for COVID, right?

Dr. Herrick: That is right.

Bishop: I'm not sure that gives me a lot of confidence in my flu shot every year, but I'll still get that, and I have gotten that every year and it seems to work, but I didn't realize that vaccine is only 50 to 60 percent. I guess that's pretty good, but I was thinking it would be a lot higher. But you're saying that the COVID vaccines are up in the 90 to 95 percent effective which is really as good as it gets, right?

Dr. Herrick: And that was published in the New England Journal of Medicine which is the highest impact medical journal in the world.

Bishop: Ok, ok. Good! Here's a couple more. Most people do not get severely ill with COVID, I think we all know that. I know many people, especially younger people, often don't even have symptoms, and if they do get it, it's really relatively mild. Isn't this just a big government plot to subdue the population into taking the shot?

Dr. Herrick: I think there are people who are alleging that, but I want to tell a story. It happened last weekend, and I have the permission of the patients to say this, but I had a 29-year-old we admitted, female, to the hospital for COVID and she just kept getting sicker and sicker. We maxed out the oxygen, we couldn't go any higher, and we gave her optiflo, it's high delivery oxygen, and she maxed that out, and so we sent her to the intensive care unit, and we had her on bi-pap, which is like c-pap, what people use for sleep apnea, except she wasn't asleep, she was awake, and she had to get that to get her oxygen. It was looking like she was going to have to go on the ventilator. There are visitor policies for COVID patients, but I got an exception to have her husband come see her. They allotted one hour for him to come and see her and I thought that was important because it could have been their last conversation ever. What I want to do with this is help avoid situations like that. The COVID vaccine can

help us do that. We go to the state capitol to campaign for prolife laws, to protect the old and the weak. Most people who die of COVID are old and weak, and I think we should exert at least as much effort in getting the vaccine as we do in traveling 100 miles or so to go testify for a law.

Bishop: We often talk about defending the lives of the most vulnerable and often those are our brothers and sisters in the womb, they are very vulnerable, but we sometimes forget that as we get older on the other end of life, we are vulnerable as well. As we get older physically and we're more susceptible. This really is a piece of that. Trying to do everything we can to protect the lives of the most vulnerable and not just having them get the vaccine, but the reason the others would get the vaccine would be to protect them as well. Not simply to protect themself when the chances are it wouldn't impact a younger person, but to protect those others that are a part of your life that are vulnerable.

Dr. Herrick: Right. When a vaccine's not 100 percent effective, we rely on the herd effect which you may have heard of. The idea is that if there's enough people vaccinated each one in this case would have a 95 percent chance of being immune. If COVID illness gets started in that population, it may hit one susceptible person but then it's about only five percent likely to find another susceptible person. So, that's why we like to vaccinate everybody. The AMA, say what you will about the AMA, they are authoritative. In their journal last month, they published an article that said that 50 to 70 percent of the population needs to get the vaccine, or this is not going away.

Bishop: Wow. Well, I turned 61 this year and so I'm not sure I'm quite in the most vulnerable, but I'm getting there. I think I've read different things, whether if you're over 60, or now I've read over 65, but I recently went in for a physical with my family physician, my regular physician, and asked him about the vaccine and when it would be available because I do intend to receive the vaccine myself when I can. That's one of the challenges now is where do you go to get it. So, I told my doctor to let me know when it becomes available, so I'm hoping to receive it myself. I want to put it to you, as a doctor yourself, as someone who's as we said at the beginning, someone who is a very faithful Catholic. Not only in your own personal life, but in your own profession as a physician you strive to follow the teaching of the Catholic Church in so many different areas. What are about you? Do you intend to receive the vaccine? Are you comfortable with it?

Dr. Herrick: Yes, yes. I would bet my scapular on it. I received it nine days ago. Our daughter who is in healthcare received it last week. My wife, who is in education, plans to receive it as soon as it's made available to her.

Bishop: So you've already received it. Interesting. Do you know which vaccine you received? Was it the Pfizer vaccine or Moderna?

Dr. Herrick: Moderna.

Bishop: Ok, is that a single or a double shot?

Dr. Herrick: They're both double shot regiments.

Bishop: Ok.

Dr. Herrick: The Pfizer doses are closer together, the Moderna doses are about a month apart.

Bishop: Ok. Very good. We covered a lot of ground really quickly. I hope this was helpful to many of our people who have questions. Certainly answered a lot of my questions. But the bottom line for me, is that … I think this is the first time I've really sat with someone who is an expert in the field to get a perspective on the vaccines from medicine. As I said earlier, we're also going to look at this in another segment of these interviews with experts in the moral and ethical field. They do overlap a bit. They're not totally separate, but I'm glad we had the opportunity to sit down with you, Dr. Herrick, today, and ask you some pointed questions. These are questions that I know you get and that I get here at The Catholic Center.

Dr. Herrick, you know at the outset I mentioned the Catholic Medical Association, CMA. That's something that I've been involved with even before I came to Kansas City when I was Bishop in southern Missouri. It's really a great organization for Catholics who are in the healthcare profession. Not only doctors, but nurses, anyone that works in that field. I've been really impressed by the membership here in the Kansas City area, but I know a lot of people aren't really familiar with the Catholic Medical Association. You mentioned I think the White Mass, and some of the activities, but tell us a little more about that and I think a lot of people would be interested in that.

Dr. Herrick: Yes, thank you, Bishop. So, the CMA, Catholic Medical Association, is why I'm here. In a lot of ways I'm just a simple family doc. The CMA exists to bring not only Catholic spirituality to medicine, but to bring medicine back to Catholic spirituality. We have monthly meetings, we have support for physicians. It's kind of a stressful time to be a physician and every month we meet, we support each other, we have Mass. The biggest event of the whole year is the White Mass. This is a traditional event for CMA chapters. The Chapter of Kansas City has been having this for at least 10 years. I know you came at the very first and you've been continuing to come ever since. And it's a great opportunity to see the bishops. So, at any rate, this year's White Mass is at St. Agnes in Roeland Park on February 13. We always coincide this to the time of Our Lady of Lourdes. CMA is why I'm here. Dr. Welsh, former past president of CMA helped arrange this interview. Dr. Sam Caughron, molecular pathologist, he knows things, he does things like PCR for a living. He gave me advice for this talk. I also met Dr. Dana Hawkinson, who you might know from the TV segments of coronavirus every day for the past nearly year. I met him through activities that sprung out of the CMA and he was most generously offered his help in interpreting this mass of data that we're trying to wade through.

Bishop: Where is he, is he at KU?

Dr. Herrick: Yes, KU Infectious Disease. Right.

We need to end this pandemic. Though there are risks, the vaccine, they're not as great as the vaccine itself. There's been mental stress for a lot of people, educational stress, but most of all spiritual stress. You know, not everybody's getting the Mass, and if you get the vaccine, I think people can come back to Mass.

Bishop: Yeah, there's so many people that haven't been to Mass for a long, long time and that too is really tough. I know I'm concerned, I know our priests are concerned about getting through this so we can return to the Lord, and really return together. You underestimate the power of being present with the other members of the body of Christ. The perfection of our Communion with the Lord Jesus is when we're gathered together at Mass as the Eucharistic community. I can tell it's important to you, doctor. It's important to me, and so many others who will be watching this. I want to thank you for your witness today, that's what this has been. A bit of a witness, but also sharing your own professional expertise as a

doctor. I express gratitude as well to those you mentioned at the Catholic Medical Association. We're blessed to have so many right here in the Kansas City area. I want to encourage so many of our Catholic physicians, nurses, technicians, to become members. It's a great organization that provides such great support to this profession. We need that. We need fellowship, we need one another, to come together in faith around that is very important. Once again, thank you. Thank you for being with us and sharing with us your knowledge as well as your faith, Dr. Herrick.

Dr. Herrick: Thank you, Bishop.

Bishop: Well, you know, this really has been helpful to me. We, as creatures of God, we're unique in that we have a soul. We're both body and soul, a unity of that. I know many of our faithful, not only are concerned about their physical well being, but more importantly, we want to make sure our souls are healthy. We don't want to put our souls in jeopardy. I think some of these questions just come out of people's faith. Their desire to do the will of God and to not cross over a line that would be sinful. So I think some of these concerns, spring really from that desire to be faithful. So this has been helpful, I think. It's been helpful to me, I know I've learned a lot this morning. I hope it's been helpful to all of you who want to not only take care of your physical health, but just as importantly, if not more importantly, our spiritual health because ultimately, that's what we're called to do as followers of Jesus Christ.

If you're interested in reviewing this or sharing this with others who you know might have questions, the transcript of this, I guess the video of this, will be on our diocesan website so please direct people there. The other thing is, there may be some questions that I didn't ask Dr. Herrick today that you would like asked. So, we're going to have an opportunity for you to follow up on anything that was said, that might be unclear, or there might have been a question that wasn't put to Dr. Herrick that you might like to ask. I think we'll have an opportunity for you to submit other questions because ultimately what we want to do is to provide guidance and help for people in this time that we're in now where we do have some light at the end of the tunnel with some of these vaccines and so, as the vaccines become more and more available I think some of these questions will begin to emerge and there may be others. So, I want to thank you for joining us today in this interview. I want to thank Dr. Herrick, thank you again for being available today to answer some of the questions that have come about. I really appreciate your availability this morning, but your role with the CMA and just your living out your faith in your profession as a physician. Know of my gratitude for your availability.

The next segment of this I'll be interviewing a couple of local people – Father Charles Rowe who has a doctorate in moral theology as well as Dr. John Morris, who is a professor at Rockhurst University. They are the local diocesan resources that work with our local Catholic hospitals and others in the area. They're going to be talking about some of the moral and ethical questions surrounding the coronavirus vaccines. So, I think that does it. How about we end with a prayer? Would that be good? I think it would be good.

In the name of the Father, and of the Son, and of the Holy Spirit. Amen.

God, our father, you are the Lord of life. You give us the gift of life, and not only our human life but through Jesus Christ your Son, you give us access to life eternal. Life in the spirit. So we actually get to participate in your divine life. We thank you and we praise you. We ask you to help us be good stewards of that gift. To not only steward the gift of life in ourselves, but to also help each other. We ask you in this time of pandemic to be with those that are ill, those who are sick not only from coronavirus but from other afflictions of the body. We ask you to bless them and those who care for them, especially the

physicians, nurses, med tech people, all the other people that work in the hospitals on the front lines, to protect them, strengthen and sustain them as they protect and serve this precious gift of human life. We ask your blessing upon us and upon all those who will be touched by this in any way. Those who have lost loved ones because of this. We ask you to guide us in the days ahead, that we can emerge from this affliction that has enveloped the whole world. That we can be restored. Father, we thank you for this time together, we ask your grace and blessing upon all of us through Christ, Our Lord. Amen.

In the name of the Father, and of the Son and of the Holy Spirit. Amen.

God bless, everyone, until we meet again.