Sermon 4th Sunday of Advent 2020

This morning on the fourth Sunday of Advent we focus on your patron saint, Mary, the mother of our Lord. In the past few months I’ve been very conscious of women having to give birth alone because of Covid. Some have had to do that without having their partners present. And many have done it without having their extended families to support and celebrate with them. Mary did have Joseph with her when she gave birth to Jesus but she was far from home and among strangers. It must have been hard and possibly quite frightening for Mary, a young woman, to give birth to her firstborn son like that.

I think we also forget how potentially dangerous it would have been for Mary to be an unmarried mother in that society. We are used to that in this country now but we don’t have to look very far back in our history or very far around the world to find women for whom pregnancy brings enormous risks. Risks to their reputations and position in society. And risks to their lives. Maternal mortality is still horribly common around the world. And it is important that we celebrate Mary’s bravery and willingness to say yes to God. Although there are lots of things that we cannot do at the moment, we too need to be brave sometimes and say yes to God. We can cooperate with him in bringing new things to birth, if not now then in the months to come. With the news of the vaccine it feels as if this Advent is pregnant with possibilities. Though so much is dark and difficult at the moment, we also catch glimpses of light and hope for the future.

My wife Cathy is a retired obstetrician so pregnancy and childbirth have been a bit of a family business. The calls in the night. The rush to the labour ward. I have heard more than my fair share of hair-raising birth stories but I’ll spare you those. Instead, I want to share with you a bit of medical science which my wife passed my way recently. We’re all learning a bit about science these days but I’ll try not to blind you with it too much. I’m not a scientist myself so there won’t be time for questions afterwards. This bit of science come via the University of Michigan. And it concerns the placenta and something called fetomaternal microchimerism (microkimerism).

You may not have thought much about placentas but they are extraordinary things. The placenta is the only organ in human biology that is made by two people together, in cooperation. It is ‘built’ from tissue that is partly from mother, and partly from the growing baby. Because of this, the placenta is referred to as a ‘feto-maternal’ organ. In the creation of the placenta, cells from the embryo, ‘reach down’ towards the wall of the mother’s uterus. At the same time, the spiral arteries from the mother’s uterus are ‘reaching’ up towards the embryo. And this leads to the creation of the placenta. This reaching out might make us think of that picture from the Sistine Chapel where God and Man reach out to one another. Or more topically of the annunciation in our Gospel where God reaches out to Mary via the Angel Gabriel and she reaches out to God by agreeing to collaborate with him.

The placenta is the only organ that is designed to be disposable but unlike every other organs it has many different functions. It eliminates waste like the kidneys. It facilitates the transfer of oxygen and carbon dioxide in the blood, like the lungs would do, and it provides nutrients, just as our digestive system does. The placenta even has an immune function. It is a magnificently complex shared organ that supports the formation of children in the womb.

In addition to all this, the placenta enables something called‘fetomaternal microchimerism’ (microkimerism). This refers to the presence of a small population of genetically distinct and separately derived cells within an individual. During pregnancy, small numbers of these cells travel across the placenta. Some of the child’s cells cross into the mother, and some cells from the mother cross into the child. The cells from the child integrate into tissues in the mother’s body and start functioning like the cells around them.

The presence of these cells is extraordinary for several reasons. One is that these cells have been found in various maternal organs and tissues such as the brain, the breast, the thyroid and the skin. These are all organs which in some way are important for the health of both the baby and the mother. They help to signal to the mother’s body that it needs to making milk. And they help to produce collagen which helps the mother’s body to heal. So that baby is actually helping the mother to recover from giving birth.

Usually, foreign or ‘other’ cells are detected by the host’s immune system and are destroyed. The fact that these foetal cells ‘survive’ and then are allowed to integrate into the mother’s body speaks of an amazing ‘cooperation’ between the mother and her child. It suggests that the physical connection between mother and baby is even deeper and more beautiful than was previously thought. Research in into these cells suggests that may help protect mothers from breast cancer many years after they have given birth.

This radical mutuality at the cellular level is something that we are just beginning to understand. We are not the singular autonomous individuals that we sometimes imagine. We know that at a theological level. We have a sense of our mutual interdependence. We have a deep sense of God’s presence in each one of us. And Christmas is a wonderful reminder of that. But now we have a profound biological illustration of that mutuality. We speak of Mary not just being the God bearer but of her being redeemed by her son. And now we can see that at a biological level. Mary’s body didn’t just help to bring Jesus into the world. It was also changed by that experience. Jesus brings life and healing to each one of us and he brought life and healing to Mary in a very particular way.

There was a time when science and religion seemed to be at loggerheads. Virgin births were dismissed as superstition. These days, virgin births are quite common technically speaking. And instead of being antithetical to religion, so much of science seems to demonstrate the wonder and majesty of God and his creation. The creation of Covid 19 vaccines is just one miracle that we have seen recently. Like Mary, we too need to be open to the miraculous and new. For, as the Angel Gabriel reminded her, nothing will be impossible with God. Amen.