

FREQUENTLY ASKED QUESTIONS:

What is this study about?

Approximately 700 rhesus –ve Irish women who were exposed to hepatitis C virus-contaminated anti-D in 1977/1978 became infected. However, many women who were exposed have no evidence of infection. We believe these women have a very strong immune anti-viral immune system that protected them from infection and we are trying to understand how this works. We aim to study women who received contaminated anti-D but who weren't infected (i.e. who tested negative for antibodies against hepatitis C virus and negative for HCV nucleic acid). In this study we will be trying to identify specific genetic markers, which are present in resistant women's DNA, that indicates resistance to hepatitis C virus infection. We will then study the function of those genes. To do this we also need to study women who were infected by contaminated anti-D.

By understanding how Irish women were able to resist hepatitis C virus, we hope to uncover the mechanism that provides protection against viral infections. If we unravel the mysteries of this mechanism, we can try to harness it to create successful vaccines, not only against HCV but perhaps against other recalcitrant viruses. We may also be able to create new anti-viral therapies against not just one but many different viruses.

What exactly is anti-D immunoglobulin and was this given to just women in 1977?

Anti-D is given to Rhesus (Rh) negative women during pregnancy and/or after they have given birth (particularly if their baby is RH+ve) to prevent the production of anti rhesus antibodies which will cause haemolytic anaemia of the foetus and newborn in subsequent pregnancies. It is standard care for all Rh -ve women to this day.

What is hepatitis C virus and why is it associated with anti-D immunoglobulin?

Hepatitis C virus is a virus that infects humans and lives in the liver. It is present in an infected person's blood and is transmitted by direct blood-blood contact. Prior to the development of tests for hepatitis C virus in the early 1990's it was not possible to screen blood donations for infection. Because of this a number of outbreaks occurred which were linked to contaminated blood products used in hospitals. In Ireland is particularly affected people with haemophilia (a bleeding disorder), as well as women who received anti-D immunoglobulin between the years of 1977-1979 and 1991-1994.

For the women who were infected with the virus, were there any that fought off the virus?

After receiving contaminated anti-D immunoglobulin many women cleared the virus with their adaptive immune systems (antibodies and T cells). The antibodies could (and can still) be detected by an assay - that's how infected women were identified. Over 300 women failed to clear the virus and are still infected.

Were there women who did not become infected at all?

Yes there are a large number of women who showed no signs of infection when they were tested. These women were able to naturally fight off the virus.

Do we know how they resisted infection?

At the moment we do not know why some women resisted infection. We believe their immune systems are particularly strong and are able to effectively stop the virus. We have evidence to suggest this is the case from a small pilot study on 16 women who resisted infection. To prove this though we need to study a lot more of these women who resisted infection.

Is similar research being done for other viruses?

This is a very interesting question. It may be the case that women who are protected from HCV are also protected from other viruses. This is a question we are very interested in and we hope to try and address this in our research.

I'm interested in your study, how can I help out?

This first thing to do is get in touch with us. Please ring us on 087 7913600 or send an e-mail to Mark.Robinson@tcd.ie - whichever you find most convenient. Leave your contact details and we will be in touch.

What will taking part in your study involve?

This study will involve completing a short postal questionnaire and giving us a saliva sample which can be sent to us by post (we will provide a stamped addressed envelope). We will use this to find out whether your immune genes are different to other peoples. You will not have to give a blood sample or travel to Dublin to take part in this aspect of the study.

Following the first stage of our study, there are additional experiments we would like to perform on immune cells in order to find out about the immune systems of people who resist HCV infection. If you are interested in these future studies please let us know and we will send invitations (which of course you may decline), within the next 12 months.

Will I be paid?

Unfortunately not. But if at any stage you need to travel to take part in this study we will cover your travel costs.

I tested negative, will you be able to prove I was infected with HCV?

We are unable to prove definitively whether you were ever infected by HCV. The Irish Blood Transfusion Service have a screening programme to identify all individuals who became infected following the receipt of HCV-contaminated blood products and this programme demonstrated that you were not infected. We think that people who were exposed to HCV and resisted infection have a very special immune system.

I am interested in finding out more about your research?

Please visit our website where there are several papers and reviews you can download. The website is: https://www.tcd.ie/Biochemistry/research/cig_hepatitisc.php

I received a contaminated batch of anti-D between the years of 1991-1994, can I take part in your study?

At the moment our study will be focussing on women who received contaminated anti-D batches between the years of 1977-79. This is because the two outbreaks (in 1977-79 and 1991-94) involved different types of hepatitis C virus – it was a genotype 1 virus in 1977-79 and a genotype 3 virus in 1991-94. This difference may affect the results from our study. We may well include women exposed between 1991-94 in future studies. Therefore please feel free to get in contact with us. We will keep you up-dated on our research and any future studies.

I received anti-D but I have not been tested for hepatitis C, can I be tested as part of this study?

We will not be carrying out hepatitis C testing as part of this study. If you received anti-D and believe you should be tested you should contact either your GP or the National Screening Programme who will be able to advise you about testing. The contact details for the Irish Blood Transfusion Service are:

Freephone Helpline: 1800 222 111

If you are calling from outside Ireland please phone: +353 1 432 2865

Email: RecipientTracing@ibts.ie