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exposure

December 2018

The combined magazine for the nuclear community

The Fallout Portraits Project

A fascinating mix of audio and visual portraits of descendants

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Foreword

Christmas is a time for miracles. Children, Carols, charity and light coming small and beautifully into darkness in the form of a little baby, the possibility of getting the entire family around a table for once!

There are people who hate Christmas and often with good reason. The cheery family perfection just isn't real for a lot of us, giving our loved ones a "proper Christmas" is expensive and if you're anything like me, you get to Christmas day having not done half the things you'd hoped to. The cards, the presents, organising the in-laws, the cooking, the cleaning and of course the shopping won't do itself! And then there are those picture perfect family scenes with everyone smiling and playing boardgames or gathered around a piano to sing carols. Forget that we are stressed about work or our relationships you'd be forgiven for thinking that "Christmas" demands that we pretend everything is lovely.

I'd like to invite you to take a break from all that. Because Christmas, real Christmas, is much kinder. In fact the first thing the Christmas story tells us is that we're not alone in finding life stressful. Mary and Joseph were just recovering from a near break up, they were struggling to make ends meet, they hadn't been organised enough to set up a room to stay in and their relatives didn't seem to care. And just at that moment, when everything was all going wrong, the miracle happened: God showed up. It didn't make everything ok. It barely changed their relational or organisational or financial situation… though they did get three rather unusual gifts! But it changed their experience of life. And the miracle wasn't just for Jesus' parents. "Unto you is born this day a saviour" the angel told the shepherds. The Christmas miracle for you and me! The Christmas message is that God has joined your team.

Dietrich Bonhoeffer, a German theologian and activist wrote this from a Nazi prison where he was being held. "So the Christmas message for all humanity runs: You are accepted, God has not despised you, but he bears in his body all your flesh and blood. Look at the cradle! In the body of the little child, in the incarnate son of God, your flesh, all your distress, anxiety, temptation, indeed everything that separates you from God, is borne, forgiven and healed."
That was the experience of Emma who came to my church for the first time last Christmas. She told me later that she was a bit nervous that she wouldn't know what to do but was warmly welcomed at the door and handed a order of service that explained what would happen. She sat down and as the music started she found she recognised a few of the carols. As the hour long service continued she felt gathered up as people from all over her community sang and celebrated. As she listened to the stories of Christmas, of a little baby being born to an ordinary couple in an ordinary town, the angels gathering up the poor shepherds and the star guiding the rich wise men, Emma told me that she felt a sense of peace that she hadn't felt for a long time. Her life didn't radically change but she found something that has stuck with her and she keeps coming back to…she felt that God was with her.

So I'd like to invite you to a Christmas service this year. It may be your local Midnight Mass on Christmas eve or a Christmas Day service on Tuesday morning. I can promise you'll have a warm welcome and maybe some Christmas cheer but what's more important is that Christmas miracles still happen. It might be that just at that moment when life is hardest, so much isn't the way you'd want it, that this is when God turns up.

Sally Hitchiner
Brunel University Chaplain

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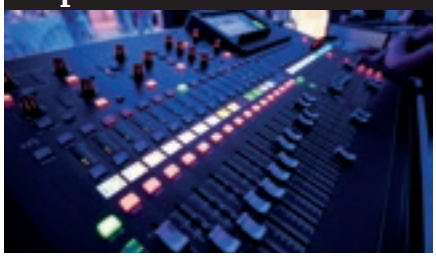

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The Nuclear Community Charity Fund

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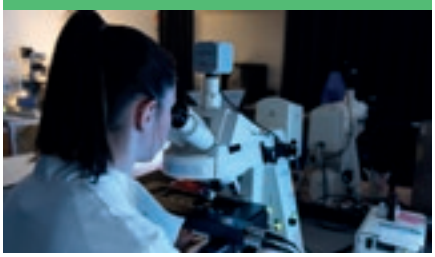
CHRC



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CHRC

Centre for Health Effects of Radiological and Chemical Agents

Obsiven

AVEN Montauban 2018

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The Fallout Portraits project

I am a theatre director and a drama lecturer at the University of Winchester. Over the last few years using some funding from the University, I've been interviewing descendants and talking to them about their memories of their fathers and their own experiences as a descendant.

With some of the material I'd collected, I made (with their permission) some audio portraits. These audio portraits are a strange hybrid mixing documentary with fiction, testimony with poetry, and fantasy with reality.

It's been a fascinating experience for me and I'd like to thank all of the people who helped by offering time, hospitality and encouragement. I'm sorry that not all of the interviews made it into the audio pieces but there was limited money and limited resources.

As an academic, along with doing these projects one is expected to reflect on them and write about them. I've recently finished a paper called, Where Do You Put The Bomb? which is my reflection on why I chose this form and what I learned from making the pieces. I'd like to share some of those reflections here.

The origins

Nuclear exposure brings with it real, imagined and potential change. Mutations, metamorphoses and translocations are the parlance of the effects of exposure. Often the changes and the causes of them only become apparent later with time and distance. This phenomenon is also true of the creative process. I began by trying to make theatre and ended up with a form that wasn't quite theatre. I thought we would tell stories about people being but ended up with portraits of people becoming. If you expose the creative process to radiation what can you expect to produce but a mutated hybrid of forms?

I had started with the intention of making a piece of verbatim theatre (actors on stage repeating the words that descendants had said during interviews). I had been involved in a project like this with veterans from Maralinga some years ago and produced a play called Half a Life. Now we wanted to find a different form that might be capable of reaching wider audiences but remain true to the original notion of using personal testimony of descendants to advance awareness of the cause of the nuclear community. In this case the awareness of the damage that the nuclear tests still inflict on the test veterans and their descendants.

Stories or portraits?

As a theatre maker, the instinct is always to find stories, and stories are always about things changing. But what if the change is imperceptible? Some of the descendants I spoke to inhabit a vague and somewhat intangible relationship with their own bodies, a feeling that some unspecific chromosomal aberration has created health problems that endure. For most, the science that may shine a light on the reality of this chromosomal transformation is not accessible and so the feeling that 'things just aren't quite right' becomes an embodied state of being. They embody what the anthropologist Joseph Masco has described as the "nuclear uncanny". For a theatre maker it is difficult to build stories around changes which are imperceptible.

The final form

I decided then to create a series of short audio pieces, each concentrating on individual descendants that investigated and described the way that the bomb blasts that their fathers had experienced had been subsumed and embodied in their own lives. Each piece would use recorded interviews with fictionalised moments; and all the narratives would be tied together with a rhythmic narrative poem. These pieces could stand alone as audio portraits to be listened to through broadcast, or through being located on suitable websites, or they could tour with exhibitions, and they could be emailed backwards and forwards amongst interested listeners.

The pieces will be part of the NCCF's virtual museum accessed at memorial sites. They are also featured as part of an exhibition 10 Minutes to Midnight which has toured Australia and will be reprised in Sydney in August. You can listen to them through the links below. Do feel free to drop me a line and let me know what you think.

FALLOUT, Portraits of descendants

To the background of her father's funeral mass, **Shelly Grigg** talks about her Fallout group as a Franciscan Friar considers the meaning of change.

As a radiation biologist discusses chromosomal aberration, **Steve Clifford** recounts his childhood experiences as his father prepares for the bomb blast.

A theatre critic guides us to a stage where the spotlight shines on **Sharon Harris**, on the next stage her father stands beneath the nuclear lights, and on the third, we are half we through a Samuel Beckett play.

You can listen to them all in the Nuclear Community Virtual Museum just visit:
http://nucleartest.online/audio-galleries/

and scroll to the 'Gordon Murray Collection'.

Gordon Murray
The University of Winchester
gordon.murray@Winchester.ac.uk

Excerpts from the collection

Steve Clifford

A radiation biologist and a reiki healer consider what it means to be an absorber of energies. A nuclear child's uncanny childhood experience connects him to his father's confrontation of the bomb blast. A digital picture hanging from the wall narrates for us and we are asked to consider the nature of exposure.

Shelly Grigg

Where is God in the atom bomb? August 6th; Hiroshima day, The Feast of the Transfiguration and the day of Corporal Roy Grigg's funeral. As his funeral mass takes place his daughter recounts her father's journey from nuclear veteran to Franciscan friar and Brother Hugh considers the nature of real and metaphorical change.

Sharon Harris

Lights up on stage where the spotlight shines on a wheelchair bound dancer. Nearby a veteran stands beneath the nuclear lights of Christmas Island. Meanwhile Samuel Beckett's play endgame is halfway through and a theatre critic speculates on the nature of change.

Natural Cut Stone

Over the past 17 years, Natural Cut Stone has developed a reputation as experts in their field, producing the highest quality stone products, working across the UK and into Europe.

Attention to detail at their Nottinghamshire workshops is one of their key strengths, whether the project requires large quantities or individual bespoke pieces, rest assured that you will receive the best possible service. NCS source the finest natural stone from all over the country, from well-established quarries, and specifically only sell materials that carry a full set of written reports detailing the quantity and suitability.

Working with materials of this provenance Natural Cut Stone is certain that the end product is of the highest possible standard Using computer-aided designs they work to extremely precise points of accuracy. This quality control is just another service they provide to assure their customer's peace of mind.

They have established long-lasting relationships with many satisfied clients including the NCCF who named them official stonemasons of the organisation for their Remembrance Project.

Natural Cut Stone are responsible for the design, construction and installation of the Nuclear Veterans memorial at the National Memorial Arboretum. They are fully qualified, working to the standards and guidelines of NAMM (National Association of Memorial Masons) code in fixing monolyths and lawn type memorials.

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Building the NCCF brand

In 2015 we were asked to present ideas on the branding for the NCCF. Our brief was to create a brand that represented the nuclear community that invoked a sense of togetherness and that the NCCF where there to help.

I had been designing for the Old BNTVA since 2010 when they became a charity an decided that they needed to tighten up their existing identity. At the time the key methods of communication was the campaign magazine and the website, the work was to re-fresh the existing identity.

I was pleased when we were asked to provide initial visuals for the NCCF as it was a brand new project that we would be involved in from the very start. To be able to build the brand from the ground up and be part of the project was an exciting prospect.

I always start the process of creating a brand by doing a lot of research before we even start to put pen to paper or mouse to screen. Its good to be aware of current trends or even existing charities or companies as we don't want to duplicate what may already exist. Designers are constantly looking at their surroundings and can subliminally take things in, utilise them in a design and then find it looks very similar to someone else's identity.

For the next stage of the process we like to start designing the logo as it's the main focus of any brand identity. The logo will also focus the identity as any colours, fonts and symbols will likely be implemented in the rest of the brand.

Before presenting anything to the NCCF several logos were created and then I choose 3 or 4 options

The Initial Logos

Option 1

Option 2

Option 3

based on what I think are the strongest ideas and what I think answers the clients brief the best.

Option 1 was a 2 colour yellow and grey logo that featured a hand within a hand image to the left of the logo text. The hand symbolised a holding hands concept, the NCCF would be there to guide you. The Strap-line "Making that Difference" was part of the initial brief and was to feature on all the logo options.

Option 2 was a multicoloured logo that symbolised a group of people huddled together forming the "Nuclear Community". It was arranged in a stacked and centred format as a different option to the first logo.

Option 3 was a 3 colour logo that again symbolised a group of people representing the Nuclear community that also echoed the trefoil design of the radiation hazard symbol. I wanted to create a simpler version of the second option.

At the time my preferred option was the first logo so I went as far as mocking up a website home page on the presentation to the NCCF. But on going through the options they decided that the third option represented the NCCF the best. They had rightly chosen the logo that was more suited to them. Its was friendlier and more approachable. This is a crucial part of any branding process, the designer and client must always act as a team to get to the end solution.

The Selected Logo

Here we see the logo being made to work as a single black option for forms and a reversed version for use on dark backgrounds.

The Nuclear Community Charity Fund
Making that difference

The Nuclear Community Charity Fund
Making that difference

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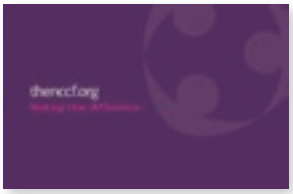
Making that difference

The next stage was to expand the brand further and show how the logo would be applied and introduce other brand elements. Once this work approved it was then a matter of working through all of the print and online collateral that the charity needed.

Creating a brand is always more than just a logo, the whole identity works when all of the elements come together to create something that is memorable, professional and identifiable to the people the NCCF are trying to help.



Why waste money on greeting cards?

Join the e-card revolution and help your charity at the same time!

We have team up with '**dontsendmeacard.com**' offering you an environmentally friendly way to send e-cards to Friends, Colleagues, Relatives and Loved ones with the charity benefiting from a donation for the cost of the card or postage.

This great initiative is being used by many of the UK's leading charities as people revolt against the extortionate prices for greetings cards. What better way to send someone your best wishes than with an ecard.

The NCCF are even launching our own range of cards that can be sent out for special occasions, Christmas, Birthdays and even National Atomic veterans Awareness Day.

You can visit the special NCCF portal at **dontsendmeacard.com** by typing the following link into your internet browser

https://goo.gl/mqS4pr

The Nuclear Community Charity Fund

The Nuclear Community Charity Fund
Making that difference

National Atomic Veterans Awareness Day 2018

On the 3rd of October over 100 members of the nuclear community gathered at the BNTVA Memorial in the National Memorial Arboretum, Alrewas to remember all those who have passed as a result of the British Nuclear Testing program. Commemorating this very special NAVAD in a place also special to our community.

The National Memorial Arboretum is over 150 acres containing 30,000 trees and more than 300 memorials. The brainchild of Commander David Childs CBE who wished to see established a national focus for Remembrance. Following a meeting with Group Captain Leonard Cheshire VC, an appeal was launched in 1994 by the then Prime Minister, John Major.

The future of the NMA was assured when three proposals were agreed. These were: for the site to be the location of the Armed Forces Memorial; for the Ministry of Defence to pay a significant grant-in-aid to allow for free entry and that The Royal British Legion would accept the gift of the site as the focus for the Nation's year-round Remembrance.

Planting began in 1997 and the Arboretum was officially opened to the public in May 2001.

Following the passing of Bob Smith's great friend and fellow nuclear veteran Peter Williams and inspired by memories of his Grandfather, Bob, a long-standing activist within the nuclear community, embarked on a campaign to erect a memorial to all our British Nuclear Test Veterans.

Bob's connection to remembrance and memorials comes from his Grandfather who, following the cessation of hostilities became involved in the recovery and reburial of bodies from the battlefields of the Great War. Working to the designs of Charles Holden, Bob's Grandfather also helped construct the Messines Ridge British Cemetery and memorials. He also continued the same work after World War 2.

Sharing the desire to ensure those lost could never be forgotten Bob was tireless in his efforts, raising funds, organising the design for the new memorial and securing a plot at the NMA. In 2006 his efforts were rewarded as along with Mrs 'Gron' Williams, Peter's widow, he unveiled the memorial and the benches bearing brass plaque messages of remembrance.

As time passed the NMA grew in size, trees matured and more memorials were erected. The BNTVA memorial, simple in stature and slightly off to one side of the final nuclear veterans plot was gradually being dwarfed by its surroundings. Its construction of rendered brickwork also suffered the ravages of time and began to crumble.

As the BNTVA evolved into a charity Bob again took up the challenge of upgrading the memorial. The new board of trustees gladly put time and effort behind the project and Derek Heaps, longest serving executive member of the BNTVA was tasked with selecting the stone for the new memorial. Sadly this was to be Derek's final job for the BNTVA, he never got to see the finished memorial as he passed away shortly after picking the stone.

On the 3rd October 2012 Bob was invited to unveil the new memorial. Hewn from Ancaster limestone bearing the marble plaque carefully removed from the original memorial, with footings containing the rubble also from the old memorial, The new memorial carried its heritage forward. BNTVA Chaplain, the Very Reverend Nicholas Frayling again conducted the dedication service.

Whilst being interviewed shortly after he had unveiled the stone Bob said:

> "I wanted to make sure there is a permanent reminder of our lives and struggles, they can't just airbrush us from history".
>
> **Bob Smith**

Bob Smith and Mrs "Gron" Williams at the original memorial stone in 2006

Bob Smith unveiling the new memorial stone in 2012

The memorial with the additional new stone - 2018

Top left: The new memorial stones draped in Union flags awaiting unveiling
Top right: Terry Washington and The Very Reverand Nicholas Frayling

Second row left: The attendees of the service
Second row middle: Keith Kiefer NAAV National Vice Commander

Third row left: The bugler play the last post
Third row right: Nicholas Frayling with the new memorial

Bottom: One of the Veterans next to the complete memorial

The new Australia stone to the left of the memorial

The new Christmas Island and Malden stone to the right of the memorial

A new plaque dedicated to the Royal Engineers who served at the tests, situated on the back of the New Australia stone

The old benches had fallen into disrepair and were to be destroyed. Nigel Heaps visited the NMA, removed the brass dedications and kept them safe until they could be found a suitable home.

Produced by Natural Cut Stone from Calverton, Nottinghamshire the new memorial stood out alone on a tree-lined avenue in the NMA and was visited by members of the nuclear community time again. In 2014 Nigel escorted a party of nuclear community members from Australia and France around the NMA, the whole site made a lasting impression on them but we still felt there was more to be done.

In 2016 we secured monies from the Aged Veterans Fund. This meant we were finally able to fund the expansion of the memorial to accommodate the brass dedications and tell more of the story of the nuclear tests. After a number of planning sessions, enhancements were finally approved by the NMA and we returned to Jason and the team at Natural Cut Stone to construct the new additions to the memorial.

Echoing the central memorial, the satellite Ancaster stones also bear marble plaques which contain graphical details of all the British Nuclear Test Sites.

Completing the memorial and providing a talking point for the many thousands of visitors who pass through the NMA every year.

The two new stones were unveiled by Derek Hickman Royal Engineers and Terry Washington Royal Navy during a moving dedication ceremony presided by the Very Reverend Nicholas Frayling, BNTVA Chaplain. Following the ceremony, guests were invited to an afternoon tea in one of the NMA Marquees.

The Brass dedication plaques are fixed to the rear of the memorials and there is space for more. If you would like to have a plaque mounted on the memorial please contact the editor, we are currently trying to obtain the best price for the brass and engraving so are unable to advise a price at the moment.

The memorial is now an impressive sight: As you walk down Market Garden Way from the Millennium Avenue, to your right is an unnamed tree-lined avenue. Our memorial sits proudly in that avenue, in front of the Nuclear Veterans garden, just at the commencement of Yeomanry Avenue. If you visit the NMA just ask one of the many guides and they will happily direct you.

The old brass dedications were rescued from the old benches and are now on the back of the original stone on the memorial

Remembrance Project - Leeds Ceremonies

As we reported in the last edition of Exposure, the West Yorkshire Branch of the old BNTVA had contacted the NCCF to see if they could help with the laying up of their Branch Standard, working with members of the old Branch and staff at Leeds Minster a ceremony was organised for the 7th October 2018.

As part of the Remembrance project, this also presented an opportunity to organise the refurbishment of the Leeds memorial. Sited in the grounds of the Minster the West Yorkshire Branch memorial is tended by volunteers from the Minster.

Natural Cut Stone, creators of the National Memorial, visited Leeds and carefully worked on the stone using their specialist non-destructive cleaning equipment bringing the memorial back to the condition when it was first erected.

On the 7th Veterans and their families began to gather at the Minster where they were greeted with refreshments from the Minsters cafe. At 16:00 hours the Rector, Canon Sam Chorley commenced the rededication ceremony at the memorial.

Brian Gay and his wife at the memorial stone at Leeds Minster

Attended by Her Majesties representative The Lord Lieutenant of West Yorkshire, The Lord Mayor and the Lady Mayoress of Leeds, The Deputy Leader of Leeds City Council, and Nuclear Free Local Authorities English Forum Chair, Councillor David Blackburn and other public dignitaries, Nuclear Veteran Brian Gay proudly unveiled the restored memorial. A reading was given during the service by veterans son and former BNTVA Chairman, Nigel Heaps MBE which was followed by a laying of wreaths. Lord Lieutenant of West Yorkshire laid a wreath on behalf of the Queen, Martin Blackburn, also the son of a veteran and Trustee of the NCCF laid a wreath on behalf of the NCCF and Mr Eric Barton, Nuclear Veteran and Trustee of the BNTVA laid a wreath on behalf of the BNTVA.

Brian had been a mainstay of the old Leeds Branch and was surrounded by family and friends during the ceremony. "It was a great honour to unveil the memorial, remembering all those lads that aren't here anymore, I think we have done them proud and now we need to look to our children and grandchildren for the future."

Everyone returned to the Minster cafe where a complimentary afternoon tea funded by the NCCF was available to all. The refreshment period enabled guests to mingle, chat and reminisce, The Lord Mayor of Leeds, Councillor Graham Latty, himself a veteran of the Nuclear Tests was able to learn about both the NCCF and the BNTVA.

Sean Morris, Secretary of the NFLA also attended, Sean was the mainstay in the Manchester council helping organise NAVAD 2017 and the re-siting of the Manchester Memorial.

At 17:00 guests were invited to the Evensong service at the Minster where the Standard of the West Yorkshire Branch was paraded through the Mister by Bearer Don James, with Nigel Heaps MBE acting as escort. At the altar, the standard was given to Canon Sam Chorley who took it into the care of the Minster in the formal laying up ceremony.

At the end of the evening, a final reception in the Minster's cafe enabled all the guests to say their goodbyes before departing for home.

Top left: Nigel Heaps MBE reading on behalf of the NCCF

Top right: The Bugler plays the Last Post

Second row left: The Lord Lieutenant of West Yorkshire and the Lord Mayor and Lady Mayoress of Leeds with attendees of the nuclear community
Second row middle: Mr Martin Blackburn lays a wreath on behalf of the NCCF

Third row left: Canon Sam Chorley
Third row right: Standard Bearer Don James

Bottom: The laying up of the standard

Virtual Museum opens New Exhibits

Nucleartest.online the virtual museum for the nuclear community opens new exhibitions and galleries. To mark the two most recent remembrance project events our virtual museum has opened three new exhibition featuring nuclear veteran memorials, Two galleries of audio and images along with a document library.

A revamped 'museum guide' has also been created, helping you find your way around the museum as it continues to grow.

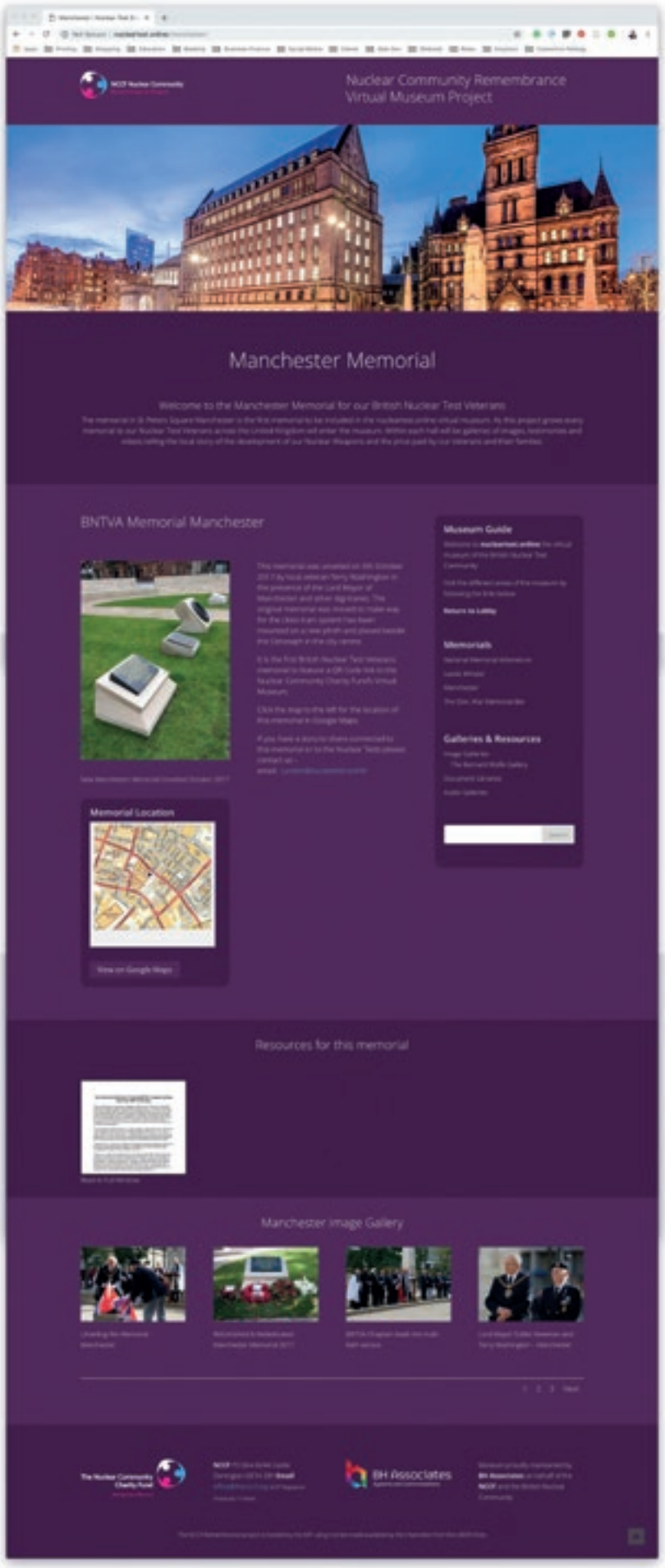
The Bernard Wolfe Gallery features images taken by Bernard during Operation Buffalo.

The Gordon Murray collection is a series of three audio artworks that that juxtaposition the experiences of veterans and their offspring and create an immersive environment giving the listener a glimpse into the nuclear community. We have an article on the collection from Gordon in this edition.

The exhibitions based on each of the nuclear veteran memorials we refurbish and rededicate continue to grow.

If you have any connection to a memorial we feature and would like to submit pictures or your memories we would really like to get them in the museum. Just email **curator@nucleartest.online**

Find the museum at **https://nucleartest.online**



Britains Missing Nuclear Community

The June 2015 Snapshot Survey of 207 British Nuclear Test Veterans provided some rough figures to help identify the size of the Nuclear Community in the UK.

The results showed that Each of the 207 Veteran's family tree's had an average of 6 genetic descendants and amongst their number, the following conditions were experienced:

Miscarriage/Stillbirth

15.29% of all conceptions

Health Problems

44.59% of live births

Congenital Defects / Serious Illness

26.38% of live births

The congenital defects and serious health issues figure of 26% is interesting in that it is almost identical to the figures uncovered amongst French Veterans in similar research by Dr Valtax.

At the time of publishing the survey results Nigel Heaps MBE, the then BNTVA Chairman, was quoted as saying

> "The health effects our children and grandchildren struggle with on a daily basis is the real legacy of British Nuclear Testing."
>
> **Nigel Heaps**

This is the important factor:

If we accept around 21,000 British Service personnel attended the tests and they procreated to the level experienced in the survey then there are in excess of 120,000 potential descendents. Of these some 31,000 could be suffering Serious Health or Congenital problems and over 52,000 people could be enduring some form of health issue affecting their daily lives.

These are the people that make up the Nuclear Community - These are the beneficiaries of the charitable aims of the NCCF.

We need to reach them, educate them about their heritage and the help that is available to them both in terms of the CWI Fund to reduce suffering and increase wellbeing and so they can learn from the results of the research projects to better equip them for the life choices they will make.

The NCCF has linked to a pool of over 5000 potential beneficiaries which represents 3.5% of the total beneficiary pool. In 2019 we will launch a new initiative outreaching to those missing 135,000 people.

When the Nuclear Family Lost Generations campaign launches you will be able to play your part by raising awareness of the help available from the NCCF for your families. The campaign will use the following hash-tags on social media **#LostGenerations** and **#NuclearFamily** please use these in your posts and comments.

Trustee Recruitment Program 2018

As a result of our recent recruitment drive, a number of potential new trustees have been selected to move to the next phase of recruitment. This will be completed by Mid-December so in the next edition, we will be bringing you the biographies of the additions to the Board.

The expansion of skills, diversity and experience is essential to ensuring the NCCF is equipped with a Board of Trustees able to rise to the challenges of the future.

We will launch another round of recruitment in the new year to achieve our aim of a board of fifteen Trustees by the end of 2019.

If you are interested in becoming a trustee of the only charity delivering exciting research and support programmes to the Nuclear Community you can register your interest by contacting **office@thenccf.org**

Care Wellbeing and Inclusion Fund News

January 2019 will see the introduction of new IT application management systems which have been specially designed to increase responsiveness, reduce application processing time and significantly reduce the costs of application processing.

Currently, applications are held until the next physical meeting of the Grant Panel, this has created an average Application to Decision lead time of around 15 weeks. This is a long time for someone who is suffering and although we have a Urgent Application system this is reserved for time-critical applications.

The majority of applications are quite straightforward and can be processed for presentation to the Grant Panel within a few days. Under the current system, these applications would be subject to the lead time delay mentioned above. This delay has the potential to exacerbate suffering.

By moving all cases onto our secure on-line internal IT system the Grant Panel is able to make a decision within a few days. This also allows us to increase the frequency of the Grant Panel meetings from quarterly to monthly.

We will still maintain the urgent time critical application process as many of the applications channelled through this method have required action within a few days of application.

BH Associates have developed the facilities within their beHubb system to make this possible and are rolling training out to the Grant Panel members so that the trial can commence in the new year.

In terms of savings, the adoption of this IT solution will save the charity £7,260 a year. If we were to contrast with holding physical monthly meetings the saving increases to £20,460. This is all achieved without any reduction in application scrutiny and delivers a more responsive system able to meet the needs of beneficiaries when they arise.

There are also a number of changes to the regulation of grant applications to ensure more funding is targetted at wider need beneficiaries, this article can be found on the following page.

CWI Fund Regulation of Grant Applications

The Armed Forces Covenant Trust suggested compiling tighter guidance on the conditions for consideration of CWI Fund grants. It was pointed out that other charities operating in our field have definite wealth ceilings above which they will not consider applications. Additionally many have caps on the number of applications, Time restrictions on repeat applications and actual limits to the value of the grants offered.

All these measures can, if applied in a sensitive responsible manner, ensure that the fund reaches more potential beneficiaries, more effectively than one operating with no restrictions. The Board of Trustees have considered the matter and have implemented the following measures to ensure the fund is better directed to those who need the support.

Wealth Cap

To assess 'Wealth' the NCCF will consider two factors: Available Funds & Planned Expenditure. Available Funds can be regarded as savings plus Disposable Income (what is left of total income each month after all bills have been paid) over a reasonable period. Planned Expenditure is effectively any ring-fencing of these available funds.

A calculation of wealth will be made using three months as a reasonable time in respect of Disposable Income plus savings. If an applicants wealth is in excess of a pre-determined amount + the cost of the provision; then the application would be refused on the grounds that it is easily within the financial gift of the applicant to fund the goods or services to address their suffering.

For 2019 the wealth cap has been set based on Government levels, this puts the wealth level at £6,000 for people below pension age and £10,000 for those in receipt of an OAP.

This is more generous than the Government levels because the NCCF allow savings to be ring fenced for expenses like funerals and property maintenance.

Illustrated example:

Applicant A has £8000 of savings and a disposable income of £500 pcm. Thus their wealth level is £9500. As they are under retirement age, they are above the wealth cap. However, they require a wetroom installing to address access to bathing issues. The wetroom will cost £8,200. This means the cap on their wealth would be £6000+£8200 = £14,200. This is higher than their wealth level of £9,500 and they would receive the grant.

If the same applicant requested a £150.00 rollator instead of a wetroom then the wealth cap would be £6000+£150 = £6150 so their wealth of £9500 means that they can easily afford to buy the rollator themselves.

The Board believe that this simple equation will ensure that funding is delivered to those who genuinely cannot afford it.

Repeat Applications

Given the level of disclosure and the fact that a good number of applicants receive an Occupational Therapist assessment, it is reasonable to expect that measures identified on the application will address the issues suffered by the applicant for a considerable time.

On this basis, a restriction on further applications has been introduced for eighteen months. This prevents exposure to 'drip feed claimants'. If an applicant's circumstances change dramatically within the 18 month period, evidence of such a change could be supplied for consideration by the Panel and an exception made.

Reduction of Suffering

The 'raison d'être' for the CWI Fund is the reduction of suffering, this also leads to an increase in wellbeing. Identifying suffering is a very subjective exercise, something that may cause grief and anxiety in one person will not affect the next. When compiling Application Summary forms for the Grant Panel the Application Manager will attempt to identify and clarify the suffering that the application will address. The panel must be satisfied they have identified the element of suffering before making a grant. Where a degree of suffering cannot be identified the application will be refused and the refusal explained to the applicant.

For advice or clarification on any matter relating to the CWI Fund please contact **0115 8883442** or **office@bhassocates.ltd**

Illustrated example correct at time of going to press.

Nuclear Families at the Royal Geographical Society, 19th October 2018

By Dr Becky Alexis-Martin

The Nuclear Families Project at the University of Southampton has explored wellbeing, mental health, cultural history and nuclear test veteran family culture for two years. During this time, the project has interviewed many people and followed members of the nuclear test veteran community and their life stories.

The Royal Geographical Society Nuclear Families day provided us with a chance to present some of our research, and to catch up with other academics in our field – including Dr Chris Hill of Birmingham City University and Dr Jonathan Hogg and Emily Gibbs, of Liverpool University. The event provided an opportunity for the interested public, academics and members of the nuclear community to gain a deeper understanding of our research Interests.

The Nuclear Families Research will be published for peer review by the beginning of 2019 and will then be made available to all members of the nuclear community through the NCCF.

Dr Johnathan Hogg, University of Liverpool
British nuclear history and culture

Emily Gibbs, University of Liverpool
"I joined CND because of my children": Nuclear anxiety, activism and the family

Dr Chris Hill, Birmingham City University
The geopolitics of French nuclear tests in the Algerian Sahara

Dr Becky Alexis-Martin, University of Southampton
Nuclear Families, Nuclear Culture

Royal Geographical Society with IBG

Letters of Thanks from Beneficiaries

Quite often we receive letters of thanks from the people we help with the fund. We always keep beneficiaries identities confidential, even our Grant Panel does not know the names of those they help. Here are a couple of them.

A Veteran Beneficiary writes...

Dear Nigel

The plumber commenced installing the central heating system on Tuesday the 4th of September he worked 5 full days from 8:30 until 4:30 with a minimum of fuss and he completed the works on Saturday the 8th of September.

He pressure tested the system and there was one small leak that was repaired very quickly. The system was up and running with only one radiator requiring slight adjustment and once that was done everything was running smoothly.

The weather in my area has been very mild so I've only had the heating on in the evening for short periods but it seems to be working well and efficiently. As far as I can say I have no problems to report.

I must take this opportunity to thank you and the grant panel on the Nuclear Community Charity Fund

During the early part of this year, I did not know what to do, I had some savings but not enough to replace my boiler. I was faced with spending another winter with a defunct heating system that would not pass muster and had been condemned as dangerous by the Gas Board. I was really worried because it was unsafe no one would fix it if it stopped working, I didn't really know what to do.

One day I arrived home and there was your Exposure magazine on my doormat, after reading through from cover to cover a glimmer of hope came over me so I wrote to you and the rest is history as they say.

So I take this opportunity and time again, to thank you and the Grant Panel for taking a great worry from my shoulders. I just didn't know how I was going to get through this winter with the probability of a major breakdown but thanks to you and the Grant Panel that problem has gone away.

Thank you

A Veterans Wife writes...

Dear Sirs,

I can not begin to tell you how much a difference the mobility scooter has made to our lives. He had been almost completely housebound for the past two years as I really struggled to push a wheelchair. Now we are out and about and really enjoying ourselves!

Just simple things like going shopping together, being able to talk about what meals to get or choosing thins for the home together.

Thank you so much to the NCCF you will never know just how much a difference you have made for us.

If you are a UK-based member of the Nuclear Test Veterans Community and have any needs that may be addressed by this project visit: **thenccf.org/care** or write to:

NCCF CWI Fund
PO Box 8244,
Castle Donington
DE74 2BY

Care Wellbeing and Inclusion Fund Managing the Endowment.

The CWI Fund is the flagship project of the NCCF designed to reduce suffering and enhance well-being in the nuclear community for at least the next fifteen years. In December we move from the Phase I funding to the Phase II funding which means that we will be using the interest gained from the invested endowment received from the Aged Veterans Fund.

When the endowment was awarded a series of conditions were placed on its use, we also had to develop an investment policy defining how we would best manage the funds to ensure a meaningful return was achieved for the beneficiaries.

The NCCF had two options:

- Setup an Investment Management Board and develop our own investment strategy engaging a number of financial experts to invest the fund and manage the return.
- Look to outsource this very specialised function with an organisation equipped to maximise the fund return in an ethical and secure way.

We did not have the requisite skills within the Trustee Board to deliver option one, this would have meant specific recruitment of Investment Management Board members. The NCCF would have been exposed to considerable risk relying on a small number of individuals to manage the investment of the monies and there would also be a hefty price tag to attract individuals with the right skills to maximise the return.

Option two may possibly yield a lower return, however, investing with a long established organisation holding a proven track record in safe fund management was very appealing.

We were aware of the Armed Forces Common Investment Fund managed by Blackrock specifically for British Service charities. Following meetings with Blackrock it was decided that the AFCIF represented our best option.

Blackrock is the worlds largest investment corporation managing assets worth over £5.2 billion. In the UK it operates a number of funds specifically for charities. The Armed Forces Common Investment Fund has a Corporate Trustee and an independent Advisory Board, comprising representatives of participating charities and senior City individuals. It is the role of the Advisory Board to ensure that the manager adheres to its investment remit and achieves long-term performance. The investment objective of the Fund is to seek to achieve real growth (ahead of inflation) in capital and income over the long term by investment principally in equities and fixed income securities.

We invested the endowment in the Blackrock AFCIF in December 2017. Using the residual funding from the Phase I Care & Wellbeing Fund we managed to address all applications in the following year. This allowed time for the entire endowment to mature and begin producing a decent return.

As we approach the first year of Phase II support we are happy to announce that the return of the last 12 months has provided ample funds to run the CWI Fund for the coming 12 months without any depletion of the capital amount.

Bearing in mind we are still in a relatively depressed investment economy this is very good news as the return can only improve as interest rates rise.

The sagacity of using Blackrock has been clearly proven and we believe the fund will easily satisfy the 15-year requirement and should even become perpetual.

BlackRock.

CWI Fund
Making lives better

CHRC

Centre for Health Effects of Radiological and Chemical Agents

Exposure Editorial Winter 2018

CHRC
Centre for Health Effects of Radiological and Chemical Agents

Who would believe that a year has passed since the CHRC was established? In this first year much of the team's effort has focussed on the design and ongoing delivery of new research projects in key discipline areas, the development and implementation of management protocols and procedures and, the promotion of our work to scientific and nuclear test veteran communities.

For instance we have participated in various scientific and public engagement events gaining new knowledge on the latest scientific developments pertinent to the nuclear community and gaining a richer insight of the questions from members of the community and gaps in understanding.

These included small networking meetings as part of future research development and, participation at key national and international meetings such as the US Radiation Research Society held in Chicago in September (please see the **www.radres.org/mpage/CRH2018Home** website for details).

At this meeting progress on the US Million Person Study was discussed. This is a very large study designed to explore various questions, such as the health of US radiation workers that includes a large group of US atomic veterans. When the scientists publish their work, CHRC will compile accessible reviews for **www.chrc4veterans.uk** with the aim of summarising their findings and, of course will make this information available to you all through future editions of Exposure.

We are particularly pleased to highlight the shared focus of our multi-disciplinary specialists and early career researchers in integrating and developing research around your community.

As part of this we are introducing various members and their projects to you as part of 'Meet the team'. In this issue, PhD student Amy Prescott provides more depth into the background and scope of her project which is exploring 'Community approaches to promote the wellbeing of British Nuclear Test Veterans and their families'. If you would like to be involved with this project or would like to simply know more, please contact CHRC using the details on page 31.

Also in this issue is an update on the progress of the Genetic and Cytogenetic Study. Alex Perry's article also provides more background information to the project for those not yet familiar with the scope of this work. This research could not happen without all of our participants and we would like to thank all of those families who are already taking part. As a reminder, participation is through an invitation letter that we (the study team) send to you via your GP. We encourage all those who do receive such a letter from your GP to contact the study team **VETS@LSHTM.AC.UK** for more information.

Over the Christmas period and leading up to the festive season there may be delays in responding to your emails and phone calls. Please note: anyone contacting us regarding the projects 'Exposure Worry' or 'Sport, culture & Wellbeing', your messages will be passed onto the relevant researcher.

Our offices will be closing for Christmas and New Year from 21st December until the 4th January 2019. If you don't hear from us before this time a member of the team will contact you in the New Year.

We would like to take this opportunity to wish you all a very Merry Christmas and a Happy New Year and to thank you all for your support throughout the year.

Brunel University London

Investigating the DNA of British Nuclear Test Veterans and their Families.

Alex Perry, CHRC's Communications and Engagement Officer, gives an update on the Genetic and Cytogenetic Study.

Why are we doing this study?

The British Armed Forces, including many readers of Exposure Magazine, participated in nuclear weapons tests at various sites in Australia and the South Pacific in the 1950s and 1960s. Since that time a number of veterans and their descendants have experienced medical conditions such as cancer and infertility. Furthermore, many of you are concerned that these health issues could have been caused by possible exposure to radiation during your military service.

To address these concerns the UK Ministry of Defence commissioned a number of epidemiology (health) studies which included examining the mortality and cancer incidence of nuclear test veterans (NTVs) compared to a control population. These studies concluded that overall levels of mortality and cancer incidence were similar to those in a matched control group meaning that participation in the tests had no adverse effects on those measured health outcomes.

Furthermore, there is no convincing evidence from other epidemiology studies to date that exposure to radiation in a parent before conception could lead to ill-health in their children. That said, there is experimental evidence gained from the exposure of cells and animals to radiation under laboratory conditions that show some effect which is why research into this 'genetic legacy' question continues.

Chromosomes (packages of DNA) can be damaged by a variety of factors. For example, it has been established that radiation can break the two strands of the DNA double helix that is found in each chromosome. Radiation can also damage the four kinds of nucleotides (A, T, C and G) that are present in DNA. There are biological processes for repairing chromosomes, but sometimes these repairs are performed incorrectly.

Professor Al Rowland at Massey University conducted a cytogenetic study (cytogenetics is the study of chromosomes) which compared the chromosomes of 50 New Zealand NTVs with a control group. They found that a certain product of incorrect chromosome repair (an aberration known as a reciprocal translocation) was 3 times more frequent in the New Zealand NTVs than in the control group, which he and the co-authors of their report regarded as evidence of exposure to radiation. The authors also reported that some of the different types of chromosome aberrations they observed indicated that radioactive materials may have entered the bodies of the New Zealand NTVs.

A cross-parliamentary enquiry recommended that the chromosomes of British NTVs be investigated using similar research techniques for assessing the incorrect products of repair of chromosomes that Professor Rowland used.

This current project acts on that recommendation and additionally is extending the research to include children of British NTVs.

Our study is further broadened to that carried out by Rowland as it will also analyse the complete sequence of nucleotides present in the DNA of the study participants, a process known as whole genome sequencing.

What is new about this research?

For the first time the CHRC will be investigating the DNA of British nuclear veteran family trios composed of the veteran, one of his children and the child's mother. Fifty nuclear veteran family trios, 150 people, are donating blood samples to our study on a rolling basis. We will study the DNA that is found in white blood cells (red blood cells do not contain DNA). There are also fifty veteran family trios who did not take part in the nuclear tests (controls) who are donating blood. We will pay particular attention to any genetic damage that we may find in the family members of the nuclear veteran trios that we do not find in the controls.

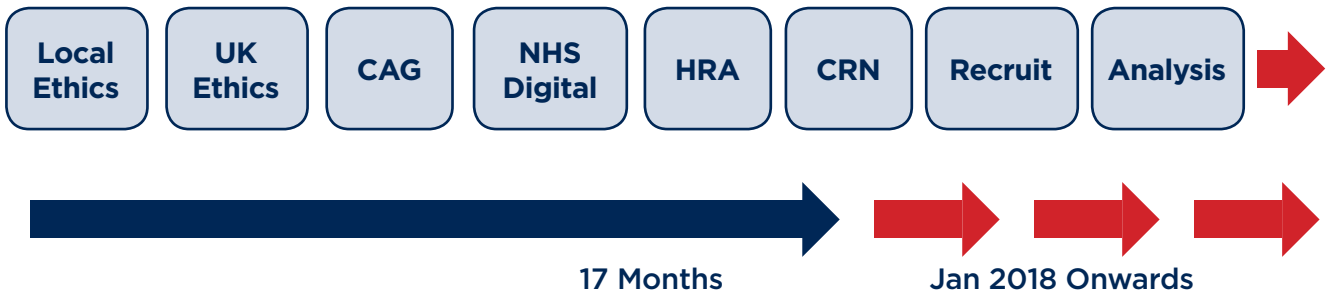
Ethical and Legal Considerations

It is a legal requirement that all research studies which involve human participants must obtain ethics approval from the appropriate UK organisations. The 'Genetics study team' successfully obtained approval from all required professional bodies after a lengthy 17 month process.

Table of Study Participants

Nuclear Veteran Family Trios (Father, Mother, Child)	Non-Nuclear Veteran Family Trios (Father, Mother, Child)
50 family trios	50 family trios
150 people	150 people
300 participants in total	

Study Permissions Flowchart



How were participants chosen for this study?

It is not possible to participate in this study without having first been invited by our study team via a letter from your GP. This means that we cannot accept the many generous offers from veterans and family members to volunteer for this study. Our reason for doing this is summed up by a concept called 'selection bias.'

For statistical purposes, it is not necessary for this study to assess all of the UK's nuclear test veterans and the corresponding control population. We have calculated that based upon the findings of Rowland, a comparison between 50 test family trios and 50 control family trios is of sufficient size to see a similar effect, if such as effect is present in our population.

Assessing the DNA of the 300 people in our study is a considerable amount of work and we are on course to achieve this. However, an important question for us to answer is "How representative are the nuclear test veterans that we have chosen compared to the nuclear community as a whole?"

In many respects, we are in a similar situation to a polling company such as Ipsos MORI who seek to predict the choices of millions of voters in a General Election based on surveying a few hundred of them. In this case the best practice is select voters or participants at random.

If voters volunteered to take part in a political survey the randomness would be reduced. The poll would be skewed in favour of those most keen to share their views and not capture the opinions of the more reserved voter. Pollsters call this skewing selection bias.

Thus, the 'Genetics study team' is selecting participants using a method called 'stratified random selection' in order that both the nuclear community and the scientific community can have greater confidence in the findings of the study.

However, there are criteria for which a NTV must meet to be chosen for this study.

Firstly, we are seeking the youngest veterans who were most likely to have been exposed to radiation (this is how the selection is stratified) based, in part, upon the number of operations attended and specific high-risk duties. This includes the RAF pilots who flew into nuclear mushroom clouds on 'sniffer' missions, the ground crew who cleaned those aeroplanes, naval crew who were aboard the HMS Diana when it sailed through a fallout cloud and personnel involved in tests at Maralinga.

Secondly, we are excluding people who have had either chemotherapy or radiotherapy for cancer. The reason for these exclusions is that these treatments damage chromosomes and potentially result in incorrect chromosome repair. For example, if we were to analyse the chromosomes of a NTV who had undergone radiotherapy it would not be possible to state whether any incorrectly repaired chromosomes observed were due to radiotherapy or due to possible exposure to radiation during the nuclear tests.

Thirdly, only those veterans who have a surviving partner and a child they have had together will be eligible to take part. This is because we need to analyse the DNA of family trios to answer the question of 'genetic legacy'.

We respect the principle of consent. Every member of the family trio that we approach (father, mother and child) must freely choose to take part based on the information we provide to them or we can't examine the DNA of any of them.

We also respect the right to privacy. Indeed, this right is protected by law and adhered to throughout the study. The selection of veterans for invitation is carried out using anonymised records, in addition, the blood samples are coded to ensure anonymity when they arrive at the CHRC. Our scientists do not know the names of the study participants and thus they do not know whose DNA they are examining. This not only serves to protect individuals' personal information but is crucial to ensure scientific rigour when evaluating the findings of the study.

The study recruitment steps are summarised in the flowchart below. It is understood that the 'child' in these studies is an adult.

Participant Collection Flowchart

We are finding that it takes approximately ~6 weeks to recruit a family trio by following the steps given in the flowchart. At the time of writing this article we are over halfway in recruiting the target number of participants necessary for our study which is great progress. We are also making good progress in our analysis stage of this study with both cytogenetic and whole genome sequence analysis of blood samples already received well underway.

What are we looking for?

Nuclear test veterans may have been issued with dosimeter film badges during their military service to monitor their level of exposure to ionising radiation. The science of the relationship between radiation exposure and chromosome damage has advanced to the level that your chromosomes can be regarded as natural dosimeters.

It is possible by identifying specific types of incorrectly repaired chromosomes (aberrations) not only to estimate the dose of radiation that a person has received, although it should be highlighted that this estimate will have large errors for historical exposures, but the incorrectly repaired chromosomes may also infer what type of radiation that person was exposed to. Our scientists will look in particular for evidence of exposure to alpha particles. Alpha particles can be blocked by a few pieces or paper, skin or by a few centimetres of air. However, if someone did inhale or ingest a radioactive material (perhaps from nuclear fallout) which emitted alpha particles then this would cause genetic damage in the body.

Human DNA is like military intelligence in that it makes use of codes. These codes, known as genes, contain information about us such as the colour of our eyes, the colour of our hair or in my case the genes for losing my hair. These genetic codes can be corrupted which may or may not progress to a health condition such as cancer. A wide variety of environmental factors, which we are all exposed to throughout our lives, including chemicals and radiation have been shown to corrupt DNA, a process called DNA mutation. A new mutation that arises in a germ cell (egg or sperm) of one of the parents, is called a de novo (new) germline mutation.

Our scientists will look out for the presence of DNA de novo germline mutations in children of nuclear test veterans.

Will this study answer the health questions of the nuclear community once and for all?

Unfortunately, the short answer is “no”. Our study has been designed to seek out evidence for genetic damage caused by exposure to radiation. Having a higher level of genetic damage is thought to increase the risk of developing some medical conditions, but this outcome is fortunately not an absolute. So if we were to find evidence of radiation-related genetic damage in the NTVs or in their families we could not conclude that this was the cause of the range of reported ill health issues. What it would do would be to direct additional research studies where the meaning for health may be explored in much greater detail.

All of our findings from this study will be published in scientific journals. When our articles have been published we will share our results with the nuclear community including you the readers of Exposure Magazine.

Sport, Culture & Wellbeing:

Community approaches to promote the wellbeing of British Nuclear Test Veterans and their families

The aim of this research project is to understand how community sport and cultural activities may help and contribute to improving the health and wellbeing of British nuclear test veterans and their families.

There are known health and wellbeing issues associated with military service. In particular, a survey conducted by Miles and Green of British nuclear test veterans in 2011 found that 72% of the veterans had reduced quality of life, 35% considered themselves anxious or depressed and 45% had not accessed any health and social care provision despite the clear need for them.

Community approaches have been successful in enhancing health and wellbeing generally. This involves working closely with people to understand their health and wellbeing needs and to develop appropriate activities and programmes. Despite the potential benefits of community health and wellbeing programmes for nuclear veterans and their families, researchers and practitioners have had limited involvement with them. Indeed, there are no published studies to date on the wellbeing of nuclear test veterans and their families. The purpose of our work is to develop partnerships with the nuclear veteran community to co-design and provide activities that can improve their health and wellbeing on a daily basis.

Therefore, our objectives for this research project are:

I. To understand what it means to identify as a British nuclear test veteran and to be a part of the BNTV community.

II. To identify what the health and wellbeing issues are within the BNTV community.

III. To identify and co-design cultural and/or sporting interventions to address and alleviate the health and wellbeing issues within the BNTV community.

This project will use qualitative research methods which allow people to express their own views and feelings about key community and personal topics which are of importance to them. This includes the use of informal interviews and group discussions.

Our approach is to listen to peoples' personal stories and to identify actions that may be taken by both individuals and the community to address issues that effect their health and wellbeing. Our focus on community sport and cultural activities is supported by the extensive evidence that a wide variety of physical and social activities can enhance health and wellbeing. Such activities might include music and singing, dance, walking, cycling, reading, drawing and painting, conservation or remembrance photography.

We will work very closely with community groups to tailor the activities to the personal circumstances of the veterans.

This research is funded by the CHRC **www.chrc4veterans.uk**

Amy Prescott

What do we aim to do, how will we do it and when? The Research Process

Phase 1: Recruitment (January – September 2018)

950 flyers about the project are distributed via the BNTVA

Expression of interest forms are sent to respondents of the flyer

Recruitment packs are distributed to respondents

Phase 2: Data Collection (November 2018 - June 2019)

1 x telephone interview (30-45minutes, no agenda, and used as a tool for getting to know each other)

2 x face-to-face interviews (60+ minutes, structured to explore the range of issues discussed in

Phase 3: Intervention co-design (July 2019)

Reflections with nuclear test veterans and families to co-design a community project for the improvement of health and wellbeing

If you would like to be involved with this project or would like to simply know more, please contact **chrc@brunel.ac.uk** or call the CHRC directly on **01895 266018** for more information.

Exposure worry, ageing, and cognitive functioning

George Collett and Prof. Mary Gilhooly

Shortly after the New Year, we will be looking at the cognitive functioning of nuclear test-veterans in relation to 'exposure worry'.

Participants will complete a couple of short questionnaires sent through the post and take part in an assessment of brain functioning conducted over the telephone. This assessment will last between 10 and 15 minutes.

If you are interested in taking part or would like more information then please contact us on:

Telephone: **01895 266018**
Email: **chrc@brunel.ac.uk**

You can also find further information about the overall project on our webpage: **www.chrc4veterans.uk/living-with-worry**

Brunel University London

Obsiven

AVEN Assembly General - Montauban 2018

The Association des Vétérans des Essais Nucléaires held their Annual General Meeting in Montauban in the Tarn-et-Garonne Department of the Occitanie Region of France between the 13th and 14th of October 2018.

AVEN had issued invites to members of all nuclear community organisations in the UK along with the United States NAAV. The NCCF was represented by Jeff Liddiatt and Don James. Nigel Heaps MBE represented the OBSIVEN movement, Steve Bexon attended on behalf of Exposure Magazine.

Starting with a remembrance ceremony at the main war memorial in Montauban, Don James joined the French Standard Bearers in a parade to the memorial. AVEN guests and local dignitaries stood for the service culminating in the singing of 'La Marseillaise'. Jeff laid a wreath on behalf of the NCCF and Nigel laid one on behalf of OBSIVEN.

© BH Associates

Nigel Heaps MBE, Don James and Jeff Liddiatt representing Obsiven UK and the NCCF

After lunch, the well-attended meeting was treated to an interesting series of presentations:

Jean-Jacques Gourde, Regional President AVEN opened the meeting welcoming all from the different Departments, Official dignitaries and representatives from overseas.

Mr Le Cloâtre, a member of l'Union Nationale des Combattants, representing General Pierre Saint Macary, National President, spoke of the importance of relations between AVEN and the UNC.

Senator. Hélène LUC has given AVEN steadfast support since the beginning and she spoke of recent events and hopes for the future.

Cécile Labrunie on behalf of Teissonnière-Topaloff-Lafforgue-Andreu & Associates spoke of the 15-year legal battle they had fought representing AVEN, she gave a detailed update on the progress of compensation cases.

Professor Abraham Behar, member of the French Nuclear Test Victims Compensation Committee (CIVEN) gave an interesting insight into how best represent a claim for compensation and explained the workload and financing issues faced by the organisation.

Keith Kiefer, President of the National Association of Atomic Veterans, Inc. (NAAV) in the United States reported on the absence of any representation from the BNTVA and then went on to talk of the experiences of the American veterans in gaining recognition and compensation for their service at nuclear test sites. A formal invitation to AVEN to attend the next NAAV General Assembly in September 2019 was given.

Jeff Liddiatt Chairman Nuclear Community Charity Fund explained how the NCCF had been formed by the old BNTVA to deliver the projects bid from government funding. Recounting the research projects and the establishment of the CHRC he also detailed the operation of the Care Wellbeing and Inclusion Fund giving a number of examples of how the fund had helped veterans and their offspring by 'Making that Difference'.

Front row left to right: Jean-Jacques Gourde, Jean-Louis Camuzat, Patrick Subreville, Jeff Liddiatt, Annette Liddiatt.
Back Row: Jean-François Grenot, Jean-Luc Sans, Keith Kiefer, René Rey and Nigel Heaps MBE

Standard Bearer Don James

Dr Kouyoumdjian and Nigel Heaps MBE spoke about medical monitoring and the different research projects that will make results available through the OBSVEN organisation.

The meeting then went on to cover the AVEN administrative activities, Accounts, Audit and Elections.

Jean-Luc Sans spoke if his time as AVEN President and the changes he had seen. He then introduced Patrick Subreville the incoming President. Patrick extended the hand of continued friendship with all organisations working to the benefit of nuclear veterans and their offspring.

The message of unity was continued after the evening meal when a screening of a film made showing British and American veterans discussing their experiences was screened. Many of the attendees remarked on the similarity of experience they all shared.

The event was not all meetings, there were opportunities for socialising and sharing experiences, building stronger international relationships between the different nations at the event.

Jean Luc will continue to assist Partick as he gets his 'feet under the table' and is also putting his considerable energies to the OBSIVEN cause, we look forward to having close cooperation in the future.

Left: A series of photographs from the memorial at Montauban. Don James joined the parade with the French standard bearers. Wreaths were laid on behalf of the Obsiven UK and the NCCF.


IN MEMORIAM
1914-1918
1939-1945


MADAME LE MAIRE DE MONTAUBAN

Jean Luc Sans talks to Exposure about his time with AVEN and his plans for the future.

Jean-Luc Sans

In 2006 in Montauban, I had the privilege to be elected on the AVEN board of trustees. As my 4th mandate came to an end in the very same city on 12th October 2018, I made the decision to withdraw after 12 years exclusively devoted to advocating the nuclear veterans' cause, 9 of which as President, with one sole objective: obtain compensation for the victims.

In this process, I have met (as far as I remember) 2 heads of State, 18 Ministers, 105 Senators and 230 MPs. I had initiated a bill for the "Recognition and Compensation of the Victims of French Nuclear Tests". However, as the terms of the bill were too restrictive, so I called for a parliamentary commission of inquiry and negotiated three modifications of the law until a genuine compensation procedure was available.

I participated in a number of television discussions on national and local channels and engaged with just about all radios and written media, including the foreign media (BBC, Switzerland, Germany, Japan).

I have often been criticized, sometimes even sullied, but no one could divert me from my objective, which I pursued with fearless determination. Today, realistic levels of compensation are being made. Recognition still has to be obtained and I will continue to campaign for it together with my successor at the head of AVEN.

From now on, I want to reconnect with my friends and relatives and also, selfishly, look after myself. But I am not completely giving up AVEN and I will remain at the disposal of the next president when it comes to the relationships with the media and political leaders.

I will also continue to defend the veterans wishing me to do so before the Compensation Committee (CIVEN). Indeed, the results obtained prove how instrumental I have been in that field and I think it would be irresponsible from me to completely give up this mission.

AVEN also has further battles to wage concerning the follow-up of the veterans' offspring. The international meetings I have initiated since 2012 have evidenced the health issues of French, American and British veterans' offspring, as well as that of indigenous populations'. This is why, as President of OBSIVEN, an organisation I created, I will continue to pay close attention to the consequences of nuclear tests at national and international level.

OBSIVEN is a new challenge for which I will now work the same level of fearless determination that I gave to AVEN.

Studies have to be conducted in each country and territory where nuclear tests have taken place.

They will have to be carried out under the oversight of every single country, but under the unbrella of OBSIVEN. Therefore, other national or territorial OBSIVEN will have to be created like OBSIVEN-US or OBSIVEN-Fiji, Marshall, Polynesia, etc., similar to OBSIVEN-UK in the United Kingdom which is chaired by Nigel Heaps MBE. Each country will conduct their studies according to their own legislation and ethical codes. The results will be published internationally through one body OBSIVEN, as the only means of calling upon organisations like WHO and UNO to address a public health issue that is due to exposure of the veterans and the local populations and also to address possible consequences with the offspring.

I am confident that the publication of this variety of studies through one single body will allow us to be more successful than previously published studies that were quickly refuted. Indeed this non acceptance could be justified as studies have been conducted on only one population or cohort, therefore often too narrow and focused.

Thank you to those who will support me, thank you to those who will help me. As to those who are used to critical inaction, I will forget them soon as I am someone who keeps taking action, knowing that those who keep inactive will always be on the safe side.

With most friendly regards,
J.L.Sans

Message from the new President of AVEN - Patrick Subreville

In October 2018 at the AVEN Conference in Montauban following many successful years leading the organisation, Jean-Luc Sans retired as AVEN President. The new AVEN President Patrick Subreville introduces himself and speaks about his vision for the future of nuclear veterans in France.

May I introduce myself in a few words: I am married, with three children. My wife Marie-Hélène is the daughter of a veteran who was a French Air Force Captain who served in Algeria and French Polynesia, He died of radiation-related cancer. I am strongly motivated by the memory of my father-in-law and the need for recognition of all victims of nuclear tests.

Until March 2018 I worked with the 'ENGIE' electricity group as a research engineer for alternative energy (natural gas – biogases – hydrogen). I was recently honoured with the title "Chevalier de l'Ordre des Palmes académiques" (Knight for outstanding achievements in the field of education) and am also recognised as a premier craftsman in France for my work as a blacksmith.

France was determined to claim her place as a world nuclear power to maintain her international respect. This decision to develop nuclear capabilities was why a large number of servicemen and civilians have been sacrificed without the least warning about potential risks. I firmly believe it is the duty of our nation to ensure that they do not sink into oblivion, their sacrifice must be recognised.

The AVEN board of trustees met in Montauban and appointed me President of AVEN. I accepted this challenge with great pleasure and I thank all trustees for the trust and confidence they have placed in me, but I am at the same time aware of the task which faces me.

However, I know I can always rely on Jean-Luc Sans' support as the new "Honorary President". Jean-Luc will keep the media relations active and will assist my entry into relations with the Government and Parliament. With his support, the transition of the representation of French veterans is assured.

Jean-Luc will continue to 'advocate' (act as claimant representative) for the claims of veterans that appear before the Compensation Committee. Together with Ms. Cécile Labrunie (from the TESSONNIÈRE law firm) our veterans will continue to receive the best and most successful representation AVEN can provide.

I know I can also rely on cooperation from Jean-Louis Camuzat, deputy president, as well as from all the other members of the board. I intend to involve all board members in the running of AVEN by delegating assignments according to their fields of expertise. I will be the spokesperson of the Association, and I fully recognise the need to earn the support of all our members.

I will continue listening to the needs of everyone and wish to tackle all the coming issues we face:

- Official recognition
- Continued Compensation
- Welcoming international organisations
- Open dialogue with public authorities
- Awareness raising within the young generations
- Promote the duty of Remembrance
- Collaboration with OBSIVEN and develop cross-generational studies.

At our AGM meeting in Montauban, we welcomed representatives from NCCF and OBSIVEN International along with the NAAV (National Association of Atomic Veterans USA). This was a great pleasure to meet and discuss the shared issues and problems we all face. We felt we have so much in common and we are looking forward to working together on joint actions.

I hope that through OBSIVEN, AVEN can act as a partner and a federating organisation together with our friends Jeff Liddiatt and Don James from the NCCF, Nigel Heaps MBE from OBSIVEN UK and Keith Kiefer from NAAV, to pool our actions and federate other countries and overseas territories in order to achieve recognition of our situation.

Patrick Subreville
President of AVEN

Cardiac diseases and low dose ionizing readiation

The Nuclear Test Veterans Model

Jean-François GRENOT (GrenotClinvest)researcher for OBSIVEN France introduces his area of interest for his next research project. - Project manager of medical studies for OBSIVEN France.
In memory of Jean-Louis FERRER (Vice President of AVEN)

Introduction

While the presence of military personnel at nuclear tests has subsequently resulted in many delayed health effects that are difficult to prove, it is even more difficult to demonstrate the cardiac pathologies associated with exposure to ionizing radiation.[1]

In French veterans, a significant increase in heart disease was found (Valatx Survey) compared to the normal population at the time of the survey.

In France and other nuclear-capable countries, Heart disease is not directly related to the impact of radiation on their nuclear test veterans, only conditions like tumours and cancers are officially recognised.

However, detonations of nuclear devices are not the only source of radiation that can affect the human body, incidents of radiation leakage from nuclear power plants, medical imaging and radiation treatments all appear to impact on the heart. This has been documented in publications. What future and what consequences could we derive from research and observations made in medicine for nuclear veterans?

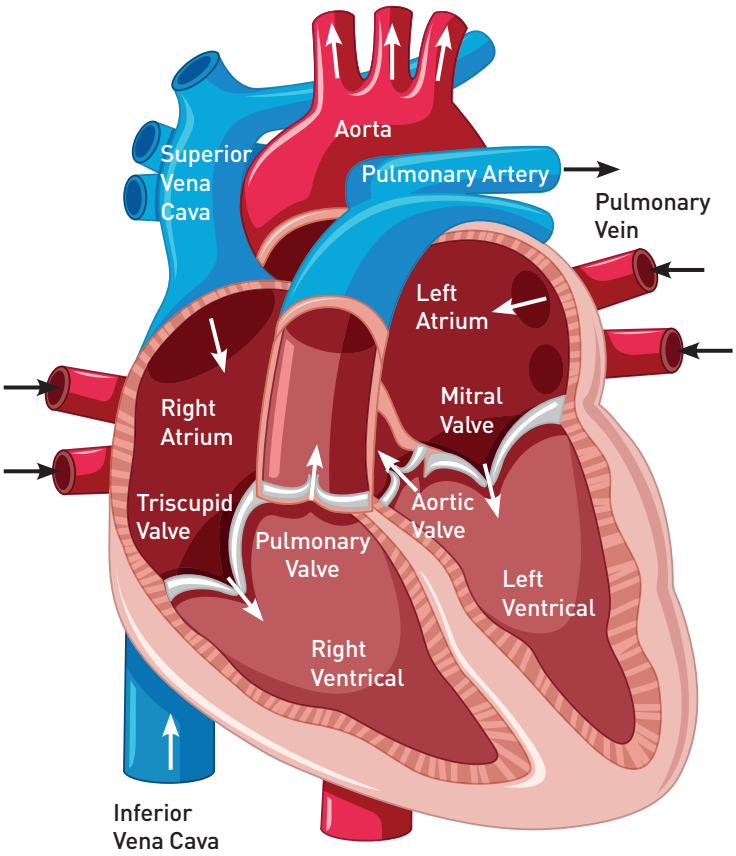


Fig.1 Diagram of the heart

The heart

The heart is a muscle that can distribute blood flow throughout the human body. It has a role of pump that is to say it sucks the blood and expels it. Thus allowing the supply of nutrients and oxygen in the form of oxyhemoglobin to the cells, and also the return of "waste" resulting from the respiratory process.

Cardiac dysfunction is called heart disease. The heart is made up of 4 cavities (right atrium, right ventricle, left atrium and left ventricle), it is obvious that a lesion on the cells of this muscle (cardiomyocytes), will have various consequences according to the location of the injured cells. In perticular, the ischemic consequences (lack of oxygen supply) on the organs and on the cardiac muscle (myocardium) itself causing cell death (necrosis), which is called myocardial infarction.

Low doses of radiation used in human medicine

Medical imaging

Radiation has been used since the end of the 19th century to pass through the body in order to establish an image allowing an examination of the internal organs. These radiations are invisible and interact with the tissues to create an image.

X-rays used in classical medical radiology are stopped by dense structures (bones, lungs ...). Thus, they transmit images of the contour of the non-traversed components.

The higher the energy (dose) of these radio waves, the more penetrative power they have, increasing the ionization of the cells through which they pass.[2]

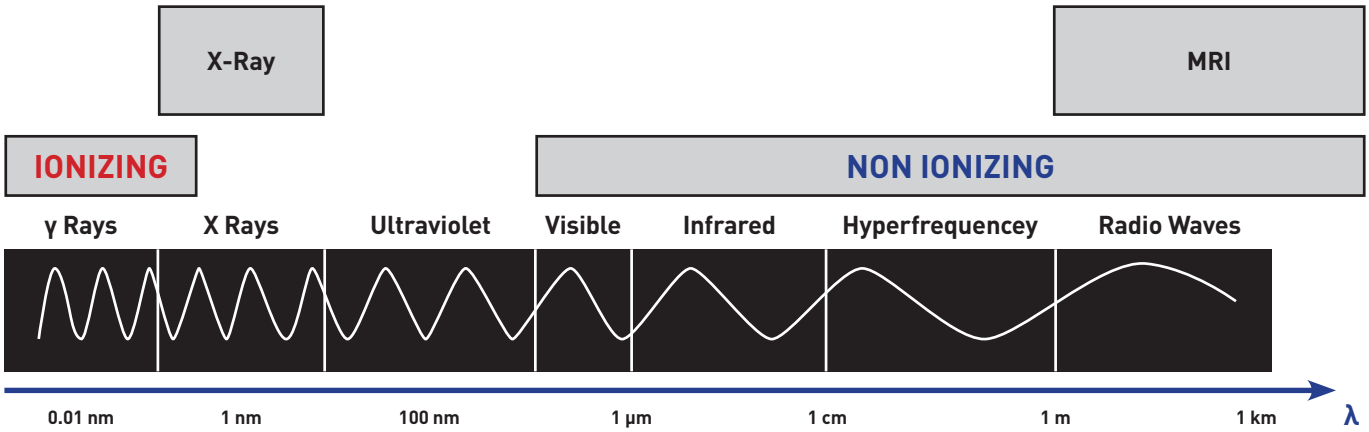


Fig.2 Radiation and medical imaging

Repeated low-dose ionization such as that used in medical radiology (scintigraphy and tomography) eventually creates an intrinsic modification of the DNA (genome) of the cells penetrated with repairable or non-repairable damage depending on the genes affected by it.

Fortunately, there are repair genes or 'killers of the genomic lesion'. The fact is that repair or apoptosis (cell death) is only possible if the genes involved in these two actions are not impacted themselves by the ionizing radiation.

Radiotherapy

In the context of cancer treatment, radiation is used under strictly controlled conditions, for example, targetting tumours that would be difficult to reach by conventional surgery. Thus are used for the purpose of tumour removal with or without chemotherapy.

As we have already explained, the tissues crossed are more likely to be damaged. It is not uncommon to find skin lesions (inflammation of the skin) to radiodermatitis (inflammation under the skin associated with radiation) during the course of treatment.

So, it would be logical in the context of chest radiotherapy targeting inaccuracies or too high strength, to be able to observe the appearance of cardiac lesions. This cardiotoxic character of radiotherapy has been observed, recently, in patients with cancer and treated for it.[3] Bringing into question their quality and expectancy of life.

This phenomenon of cardiac lesions was described in 2003, warning about the consequences of radiation on the pericardium (cardiac envelope) and the myocardium in patients who underwent radiotherapy after mastectomy (removal of the breast).[4]

The mechanisms of damage to myocardial cells by high energy radiation exist but are poorly documented at present.[5]

Animal experimentation

RNA (ribonucleic acid) has a function of transcription of DNA and also micro-repair. Hence the name micro-RNA in the context of gene repair. The production of these micro-RNAs increase along with increases to lesions of the genes (the more work to do, the more workers are produced).

Very recently, it has been determined in mice subjected to low dose radiation repeated over a period of four months, that increased levels of micro-RNA were detected in the Liver and Testicles but mostly in the heart. This would demonstrate that through this activity of regulating the genome in these mammals, repeated low-dose radiation will cause damage.[6]

Genetic mutations of myocardial cells sometimes leading to major malformations in mice have been described. The younger the individual, the more it appears that the abnormalities are important. Thus, during embryogenesis, while the heart is forming, abnormal interactions between the different compartments have been observed after irradiations of small repeated doses.[7] It is then possible to talk about congenital anomalies related to low doses.

Discussion

The animal model, and in particular the mouse, is very often used to show cardiac alterations related to radiation. In addition to this, the diagnostic and therapeutic tools used in medicine have largely demonstrated epidemiologically, an increase in the morbidity of treated individuals and an alteration of their quality of life. Although this is not the subject of this article, we could in some cases evaluate the benefit/risk balance of radiation treatments by reconsidering the age and general condition of patients.

Originally, veterans of nuclear testing are not patients. They have a high probability of becoming so many years later because they have the same negative consequences as patients treated for cancer at the outset. They suffer a stochastic effect (over the long term) that has been more or less recognized depending on the nation that conducted the nuclear tests. But in almost all cases, the recognized conditions of exposure are limited to tumours and cancers. No heart disease appears on the official recognition and compensation lists.

Conclusion

According to Jean-Louis Valatx, military doctor and researcher at INSERM (French National Institute of Health and Medical Research), It is not uncommon to observe repeated infarct lesions in nuclear test veterans, while they had no family genetic predisposition and that they had undergone the mandatory medical tests to be soldiers.

In his epidemiological survey of French military nuclear veterans, Jean-Louis Valatx was the only one to report that there are a multitude of pathologies other than cancers.

Current studies in the United Kingdom and France are intended to examine genetic mutation factors and trans-generational consequences, may determine genes involved in specific cardiac lesions.

Thus, if we demonstrate these phenomena to the competent authorities, prevention and follow-up will undoubtedly be possible and recommended, not only for nuclear test veterans but for civil nuclear workers, indigenous peoples and all the offspring of affected populations.

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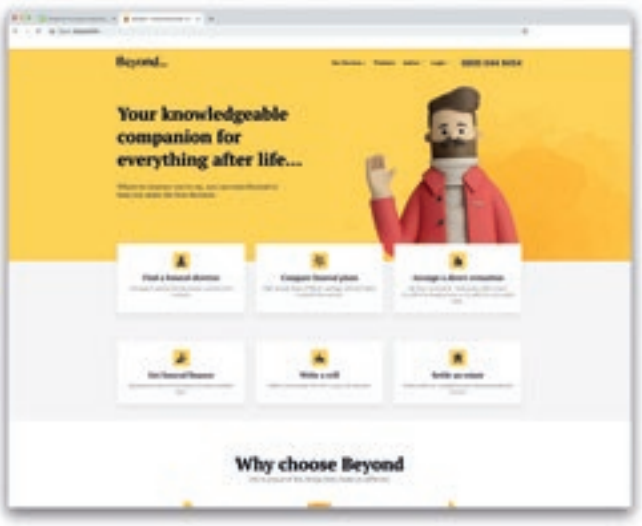

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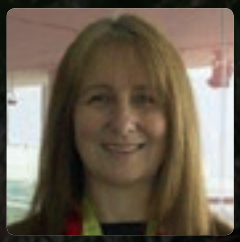

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