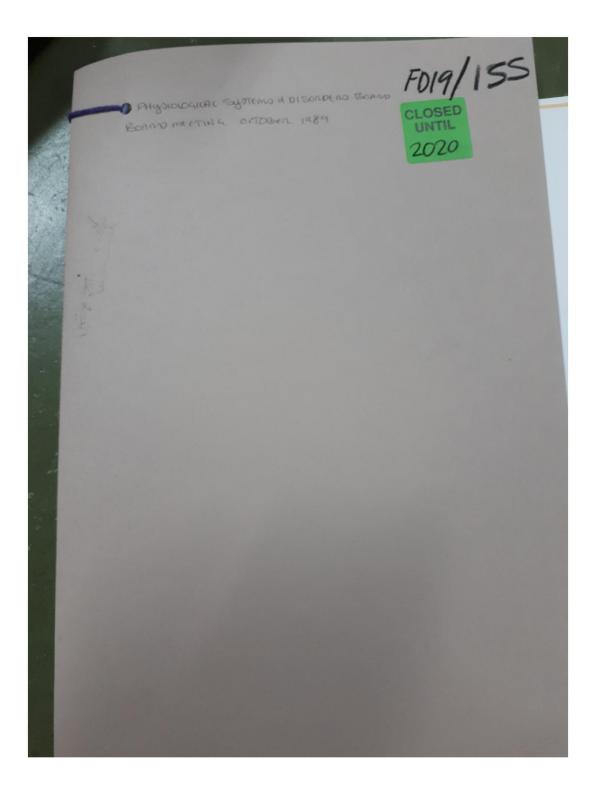
Witness Name: Alice Mackie Statement No.: WITN2189005 Exhibits: WITN2189006 – WITN2189065 Dated: 30th April 2021

INFECTED BLOOD INQUIRY

EXHIBIT WITN2189019



APPENDIX I page 3

antibody negative hasmophiliacs under regular review from whom a comparative group will be recruited.

Parents will be invited to enter their child(ren) after a full explanation of the tests and their purpose. They will receive written explanation of the project and will be asked to give consent in writing. Explanation of the tests will made to each child appropriate to his understanding.

Ethical approval has been given by the ethical committee at the Royal Liverpool Childrens Hospital for this study.

1. MRI Scanning protocol for 1.5 Tesla System

A standard neuro-imaging protocol will be used for all studies, which basically consists of three series of images:

-		_		 1 0/	
	Series	1	Sagittal T1 weighted localiser	1.24 min	
				8.57 min	
	Sonion	2	Arrial Obligue Vam TP 2000 TE 20/90	8.27 штп	
	Dertes	~	Axial-Oblique Vemp TR 2000 TE 20/90	o re	
	Contes	2	Coronal Vemp TR 2000 TE 30/90	8.57 min	
	Dertes	2	Loronal Vemb IR 2000 IE 30/70		

This protocol has been chosen because the entire brain examination can be completed in 20 minutes, or 12 minutes if the coronal views are omitted. The morphological detail obtained with multiplanar T1 and T2 weighted axial/oblique and sagittal scans is excellent at 1.5 Tesla. Our main concern is to minimise scan time so reducing problems due to motion artefact and patient compliance. In pilot studies of young children we have found the above sequences to give good morphological resolution, and minimal problems with image degradation or motion artefact due to long scan times.

While we appreciate the potential value of relaxation time measurements (13) in this population, as recommended by the MRC guidelines, the additional imaging time needed to acquire precise and accurate data may pose problems for our patients. The recommended sequences outlined for T1 and T2 estimations will produce very reproducible measurements in approximately 30 minutes of imaging at 0.5 Tesla but much longer relaxation times are encountered in the human brain at 1.5 Tesla especially in pathological states (T1 approximately 1500-2000 msec) and would require scans with much longer repetition times. While study times of 1 hour may be acceptable for co-operative adults this would be unacceptably long for our population.

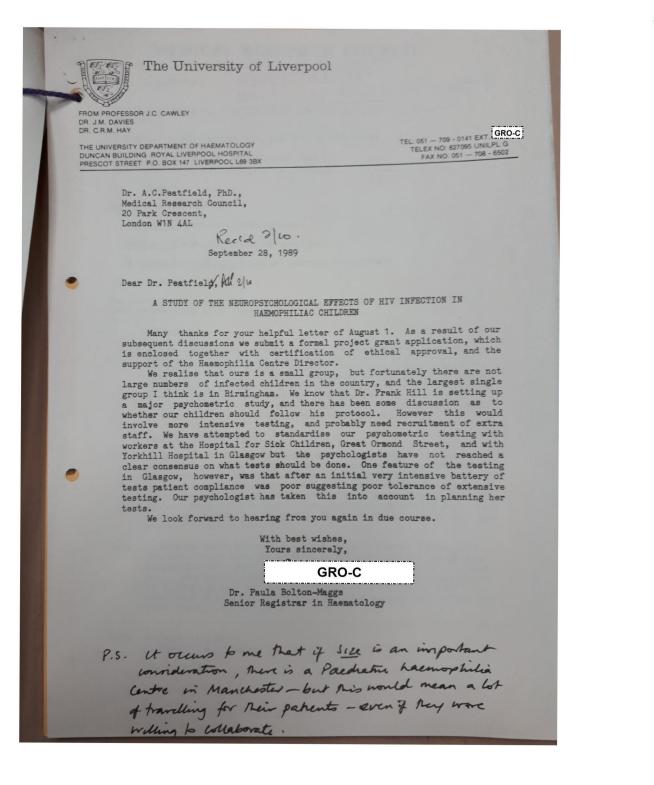
We have discussed our imaging protocol with Professor MJG Harrison (Reta Lila Weston Institute of Neurological Studies, University College and Middlesex School of Medicine) and are encouraged by his view that their present protocol works well with non-quantitative measurements, and that our imaging sequences seem entirely appropriate. However, we remain flexible on this issue and would be prepared to modify our protocol in the light of future recommendations. In particular we will contact Dr. Paul Tofts at the National Hospital for Nervous Diseases, Queen's Square, to see if his sequences for quantitative imaging of the white matter are suitable for our system.

The MRI scans will be reported in a standard way by two radiologists independently without any clinical details. We have asked for Professor Harrison's format (suitable for computerisation).

During the scan, a parent may remain with the child at all times. The scan is safe, requires no special preparation, and is not associated with any unusual sensations or any pain. No children with any metallic devices such as surgical clips and metallic orthopaedic prostheses will be imaged.

The scans will be scheduled so as to minimize waiting time, and transport will be provided for our patients from home to the centre and

WITN2189019



s	subsequent analyses to avoid contamination of samples with extraneous DNA.
	niled justification for support requested
The an scie Inst pers Ban med diss dependent	PCR work will require a full-time post, as recommended by the referee of earlier (supplementary) application. This could be either a post-doctoral ntist or medical graduate working in the immunology laboratory of the itute of Molecular Medicine directed by Professor Andrew McMichael. The son employed would work closely with Drs. Rodney Phillips and Charles gham (letter following). As the financial cost of either a scientist or a ical graduate at Senior House Officer or Junior Registrar grade are not imilar we should prefer to leave open the decision of which to appoint ending on the response obtained to an advertisement. The salary quoted is of a mid-point SHO, but also approximates to that of a junior registrar or upper range of the post doctoral research assistant scale.
of M incu for 3.	major items of equipment required can be made available by the Institute Molecular Medicine (Ultra centrifuges, fume hoods, bacteriological shakers, bators). Smaller items that are needed by each individual investigator DNA amplification, cloning and sequencing are itemised in Appendix 2 page Consumable expenses per person per year in the Institute of Molecular cine Immunology Dept are close to £10,000 itemised in Appendix I 2.
Refe	rences
1. 2. 3. 4. 5. 6. 7.	Snider et al. Ann. Neurol. (1983) 14,403-18. Nielsen et al. Am. J. Clin. Pathol. 82,678-82. Navia et al. Ann. Neurol. (1986) 19,517-24. Navia et al. Ann. Neurol. (1986) 19,525-35. de la Monte et al. Neurology (1987) 37,562-9. McArthur. Medicine (1987) 66,407-37. Epstein et al. AIDS Res. (1985) 1,447-54.
8. 9. 10. 11. 12. 13. 14.	Wiley et al. Proc. Nat. Acad. Sc.(USA) 83,7089-93. Gabuzda et al. Ann. Neurol. (1986) 20,289-95. Vazeux et al. Am. J. Pathol. (1987) 126,403-10. Pumarola, Sune et al. Ann. Neurol. (1987) 21,490-6. Budka et al. New Engl. J. Med. (1988) 319,1667-8. Eilbott et al. Proc. Natl. Acad. Sci. (USA) (1989) 86,3337-41. Stowring et al. Virology (1985), 311. Haase. Nature (1986) 322,130-6.
17. 18. 19. 20.	Hadse, Matthe (1987) 512, Vision (1987) 317, 278-86. Gendelman et al. Ann. Neurol. (1988) 23, Suppl.578-81. Elovaara et al. J. Neurol. Sci. (1987) 78, 331-42. Andersson et al. J. Neuroimmunol. (1988) 19, 291-304. Resnick et al. Neurology (1988) 38, 9-14. Gartner et al. JAMA (1986) 256, 2365-71. Koyanagi et al. Science (1987) 236, 819-22.
25. 26. 27. 8.	Cornblath et al. Ann. Neurol. (1987) 21,32-40. Bailey et al. Neurology (1988) 38,886-91. Pulford et al. J. Clin. Pathol. (1989) 42,414-21. Mannoji et al. Acta. Neuropathol. (Berl) 71,341-3. Kumplainen and Nystrom (1981) Brain Res. 220,220-5. Shubata et al. Lab. Invest. (1988) 59,555.
0. 1	Szurek et al. J. Virol. (1988) 62,357-60. Lenz et al. Nature (Lond) (1984) 308,467-70. Weyerhans et al. Cell (1989) 58,901-10.
-	

na ta