

LhARA WP5 – End Station R&D and beamline development

Meeting minutes & Actions

Meeting Date & Time:	Wednesday 15 March 2023; 1400-1430h; Zoom: https://liverpool-ac-uk.zoom.us/j/94457176826?pwd=TDFvMDliaWptdk1qUHZwcElmY0JpUT09 Mailing list hosted on JISCMail: JISCMail - CCAP-LHARA-ENDSTATION List at WWW.JISCMAIL.AC.UK		
Attendee(s):	Minutes: Ruth McLauchlan (RMcL) Tony Price (TP), Narender Kumar (NK), Ken Long (KL)		
Apologies:	Carsten Welsch (CPW); Colin Whyte (CW)		
Issue/Topic	Action	Owner	Deadline/Status
1. Apologies & Welcome	Apologies received from those listed above.		
2. Review of minutes	N/A	TP	
3. Outstanding actions from previous meetings			
Date of meeting			
10 Jan 2023	TP to write up notes/minutes from 14 Dec meeting. [17 Jan 2023] – TP working on today. [29 Feb 2023] – See update below	TP	
10 Jan 2023	TP to send thank you and list of questions to those registered for 14 Dec meeting. [17 Jan 2023] – TP working on as part of writing up notes from meeting. [28 Feb 2023] – See update below [15 Mar 2023] – See update below	TP	
4. Upcoming collaboration meetings	<ul style="list-style-type: none"> LhARA 6-month review; 21 March 2023 @ Daresbury: https://indico.stfc.ac.uk/event/722/ <ul style="list-style-type: none"> See item 7 below 	All	
5. WP5 Consultation meeting plan	<ul style="list-style-type: none"> Consultation 1: Imperial, Dec 2022/Jan 2023 <ul style="list-style-type: none"> Afternoon topic: User needs Consultation 2: Oxford, Mar/Apr 2023 	All	

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	<ul style="list-style-type: none"> ○ Afternoon topic: Experimental constraints High-energy beam-line ● Consultation 3: Liverpool?, May/June 2023 <ul style="list-style-type: none"> ○ Afternoon topic: Instrumentation and dosimetry ● Consultation 4: Manchester?, Sept/Oct 2023 <ul style="list-style-type: none"> ○ Afternoon topic: ITRF WP1.5 and WP3 overlap ● Location/scheduling of Consultation 2 not yet confirmed. Under discussion with Amato. <ul style="list-style-type: none"> ○ Discussed identifying people to invite and ask to present to cover the high-energy beam-line focus of the meeting. <ul style="list-style-type: none"> ▪ TP to identify researchers in US working on experiments on animals larger than mice, e.g. veterinary studies ▪ NK has not yet found anything in the literature for novel instrumentation to monitor the beam. Has followed up on paper highlighted by RMcL (Breakthrough in development of a new highly accurate radiotherapy treatment for cancer - IPEM) but while it is reported to measure high doses accurately there is no information regarding speed of read-out and it is not suggested for routine monitoring use but for comparison with other instruments such as ionisation chambers. ▪ RMcL suggested asking someone from NPL to attend the collaboration meeting. TP suggested contacting Anna Subiel who works at NPL in the UHD group following up on a previous meeting with her and Ken. Example of her work: https://www.sciencedirect.com/science/article/pii/S1120179717301151 and https://www.researchgate.net/scientific-contributions/Anna-Subiel-2111584023 <p>ACTIONS:</p> <ul style="list-style-type: none"> ● Location and date for Consultation 2 to be confirmed next week. 		
6. CCAP/LhARA Wiki	<ul style="list-style-type: none"> ● WP5 wiki pages require structuring (base on WP3) and but meetings minutes are being added. ● Not yet made use of JISCMail list. 	TP/RMcL	
7. Consultation Meetings	<ul style="list-style-type: none"> ● Notes from meeting held in December typed into Overleaf document by NK. Requires review: https://www.overleaf.com/project/63fde3bc54032d1d77b71519 ● TP to create parameter summary table for review document: https://www.overleaf.com/project/6405d45107cb777f8153a5c4 ● 6-month review meeting on 21 March <ul style="list-style-type: none"> ○ TP to present 1315-1345 on behalf of WP5 <ul style="list-style-type: none"> ▪ Slides to be generated including NK summary of literature review so far 		

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	<ul style="list-style-type: none"> ▪ NK update on Gas jet – ostensibly a reminder of plan for measurements this summer ▪ Update re. staffing for project, especially where outside of ITFR envelope ▪ BHM experiment to demonstrate high dose-rate capability of the beam scheduled for 29 March. <p>ACTIONS:</p> <ul style="list-style-type: none"> • Review of notes summary of Dec meeting in Overleaf document. • TP to produce summary table and add to review document. • TP and NK to pull slides together for review meeting. 	ALL TP TP/NK	
8. AOB	<ul style="list-style-type: none"> • KL introduced Rehanah Razak, 1st year ICL PhD student who is interested in taking on some WP5 work as part of her first year work, probably regarding spectroscopy. Rehanah to be invited to WP5 meetings. <p>ACTIONS:</p> <ul style="list-style-type: none"> • Rehanah Razak to be added to invitation list for WP5 fortnightly meeting. 	NK	

Next meeting dates (2023)

Date	Time
Tue 28 Mar	0900-1000
Tue 11 Apr	0900-1000
Tue 25 Apr	0900-1000
Tue 9 May	0900-1000
Tue 23 May	0900-1000
Tue 6 Jun	0900-1000
Tue 20 Jun	0900-1000

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Tue 4 Jul	0900-1000
Tue 18 Jul	0900-1000
Tue 1 Aug	0900-1000
Tue 15 Aug	0900-1000
Tue 29 Aug	0900-1000
Tue 12 Sep	0900-1000
Tue 26 Sep	0900-1000
Tue 10 Oct	0900-1000
Tue 24 Oct	0900-1000
Tue 7 Nov	0900-1000
Tue 21 Nov	0900-1000
Tue 5 Dec	0900-1000
Tue 19 Dec	0900-1000