



Deliverable D5.6 Report on network-wide training events (v2)

Project CLARIFY – Cloud ARTificial Intelligence For pathologyY
Grant Agreement ID: 860627
Consortium coordinator: UNIVERSITAT POLITECNICA DE VALENCIA
Start and end date: 1 November 2019 - 31 October 2023
Funded under: H2020-EU.1.3.1.

Date of issue: 20-Oct-2021

Due date: 31-Oct-2021

Leader in charge of deliverable: UNIVERSITAT POLITECNICA DE VALENCIA

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CHANGE REGISTER

Version	Date	Author	Organisation	Changes
A_DRAFT	18-Oct-2021	Sandra Morales	UPV	First version
	20-Oct-2021	Valery Naranjo	UPV	Comments to the previous version
A	20-Oct-2021	Sandra Morales	UPV	Final version

Statement of independence

The work described in this document is genuinely a result of efforts pertaining to the CLARIFY project: any external source is properly referenced.

Confirmation by Authors: Sandra Morales UPV

Abbreviations

DoA	Description of Action
EAB	External Advisory Board
ESR	Early Stage Researcher
REA	European Research Executive Agency
VF	Virtual Fieldtrip

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1 Executive summary

This document is a report on network-wide training events after 24 months since the beginning of the project.

In Deliverable D5.1, a detailed description of the network-wide training events done in the first sixteen months of the project was provided. In this document, the information is updated, and a detailed description of the activities carried out from month 17 to month 24 of the project is included: Virtual Fieldtrip 2 and 1st Training School. Note that the enrolment of the ESRs occurred between September 2020 (M11) and February 2021 (M16) because of some delays derived from the COVID outbreak and this modified the initial training plan.

Deliverable D5.6 is under the Task T5.2 Implementation of network training activities, within the DoA of the CLARIFY project.

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2 Introduction

The initial planning for the training activities within CLARIFY project was the following:

CLARIFY Project	Leader / Host	Topic	2019	2020				2021				2022			2023			
			nov M1	jan M3	jun M8	oct M12	feb M16	apr M18	oct M24	jan M27	jun M32	oct M36	jan M39	apr M42	aug M46	oct M48		
TRAINING - WPS																		
On-line networking training	Virtual Fieldtrips (VF)																	
	VF1	UPV																
	VF2	RD																
	VF3	TY																
	VF4	UIS																
VF5	LYN																	
On-site networking training	Training Schools																	
	Technical Lectures 1	SUH																
	Technical Lectures 2	UGR																
	Technical Lectures 3	UvA																
	Workshops																	
	Workshop 1	UVEG																
	Workshop 2	UIS																
	Workshop 3	BY																
	Seminars																	
	Seminar 1	EMC																
	Seminar 2	UGR																
	Seminar 3	RD																
	Seminar 4	UPV																

Fig. 1. Plan of the training activities of CLARIFY at the beginning of the project

However, due to COVID outbreak-related difficulties that caused the postponement of the ESR's incorporation and other modifications, the training activity plan had to be adapted as follows:

CLARIFY Project	Leader / Host	Topic	2019	2020				2021				2022			2023			
			nov M1	jan M3	jun M8	oct M12	jan M15	apr M18	jun M20	oct M24	jan M27	feb M28	jun M32	oct M35	jan M39	apr M42	aug M46	oct M48
TRAINING - WPS																		
On-line networking training	Virtual Fieldtrips (VF)																	
	VF1	UPV																
	VF2	RD																
	VF3	TY																
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VF5	LYN																	
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	Workshops																	
	Workshop 1	UVEG																
	Workshop 2	UIS																
	Workshop 3	BY																
	Seminars																	
	Seminar 1	EMC																
	Seminar 2	UGR																
	Seminar 3	RD																
	Seminar 4	UPV																
	Seminar 5	LYN																
	Seminar 6	LYN																
	Seminar 7	LYN																
	EAB Seminars																	
	EAB Seminar 1	Dr. Aneja	Breast cancer															
EAB Seminar 2	Dr. Pietou	Cutaneous malignant melanoma																
EAB Seminar 3	Dr. Prieto	Spitzoid tumors																
EAB Seminar 4	Dr. Merlo	Public Health																
EAB Seminar 5	Dr. DeRuc	Medical Image Analysis																
EAB Seminar 6	Dr. Estagelou	Artificial Intelligence																
EAB Seminar 7	Dr. Atkinson	Cloud computing																
EAB Seminar 8	Dr. Jeffery	Cloud computing																

Fig. 2. Updated plan of the training activities of CLARIFY

The aforementioned changes were approved by the REA after the formal notification sent on Feb 2021, where we communicated all the changes planned/carried out by the CLARIFY consortium with connection to COVID-19. Based on those changes, Table I shows the network-wide training activities carried out in the first 24 months. Note that four new seminars were included, one led by LYN after the modification of its role in the project that was formally notified to the REA on Apr 2021, and three additional seminars led by members of the CLARIFY's External Advisory Board (EAB) that were given during the first Training School.

Networking training activity	Host	Planned Month	Execution Month
Virtual Fieldtrip 1	UPV	M8	M15
Virtual Fieldtrip 2	RD	M16	M20
Technical Lectures 1 (online)	SUH	M12	M18
Workshop 1 (online)	UVEG	M12	M18
Seminar 1 (online)	EMC	M12	M18
Seminar 5 (online)	LYN	-	M18
EAB Seminar 1 (online)	EAB	-	M18
EAB Seminar 2 (online)	EAB	-	M18
EAB Seminar 3 (online)	EAB	-	M18

Table I. Network-wide training activities carried out in the first 24 months.

Next section will describe the activities developed from M17 to M24, as those done in the first 16 months of the project were described in D5.1. Report on network-wide training events (M12) and submitted in Feb 2021. In summary, the 2nd Virtual Fieldtrip and the 1st Training School will be described.

3 Network-wide training events

CLARIFY aims to provide ESRs with the opportunity to gather and share the knowledge within and outside the network, to receive highly targeted training, and to compare different approaches to research problems. Interactions at these events will help them to exchange knowledge among themselves, with the supervisors, trainers and external participants from different sectors. The networking training programme has been conceived to assure that ESRs get maximum advantage of the activities programmed as a support for their IRPs.

3.1 On-line networking training: Virtual Fieldtrips

The aim of this training is to provide support and background to the ESRs to define and develop their CDPs at critical development moments. On-line training is structured around **Virtual Fieldtrips (VF)**.

The first VF took place immediately after most ESRs recruitment finished, which was in 2021, Jan, 26th (M15). Even the ESRs that still had pending their contract signature participated in the event. It was hosted by UPV and the ZOOM tool was used for the videoconference. It was described in D5.1. Report on network-wide training events (M12).

On June 22, 2021 (M20), ESRs attended the **2nd CLARIFY Virtual Fieldtrip** titled "**Anatomic pathology instruments and reagents**" led by ROCHE, one of the CLARIFY's partner organizations. ROCHE showed a virtual demo of some of their solutions for the Anatomic Pathology Lab. The presentation was given by María Figueras Llonch, Product Manager Molecular Solutions (Oncology and Anatomic Pathology) at ROCHE. In particular, she presented Virtual Lab, a new and interesting tool that allowed us to see the appearance and to access information to all the equipment from ROCHE and to their main markers, not only for pathological anatomy but also for oncology and sequencing.

ESRs had the opportunity to see the tool before it was officially presented. In addition, ROCHE provided a link so that the ESRs could interact directly with the tool and provide their feedback regarding its usability and contents.

Virtual Fieldtrip 2 was attended by all the ESRs and by some of the supervisors of the project. The following pictures show two photos of the virtual session.



Fig. 3 and 4. Photos of the presentation done in VF2. Virtual Lab (ROCHE)

3.2 On-site networking training: Training Schools

CLARIFY’s on-site training was organised to take place along with each project’s Annual Progress Meeting. Networking events were arranged as **Training schools** that last 2-4 days and consist of a set of mandatory technical and transferable skills activities, including a set of:

- 1) Technical lectures around selected topics
- 2) Workshops and seminars to cover relevant transferable skills issues.

Training is given by consortium members and invited speakers, Master classes by External Advisory Board (EAB) members and relevant researchers from Academia and the corporate world.

First annual meeting and the associated **First Training School** took place in April 2021 (M18). Although this event should have been celebrated in Stavanger (Norway), due to covid-19 restrictions, it was a remote event. This event was announced in the project website as well as in the social media sites of the project.

Fig. 5 shows the structure of the First Annual Progress Meeting (13-16 Apr 2021) and Fig. 6 details the programme of the 1st Training School. Then, a description of the different sessions of the training school is provided.

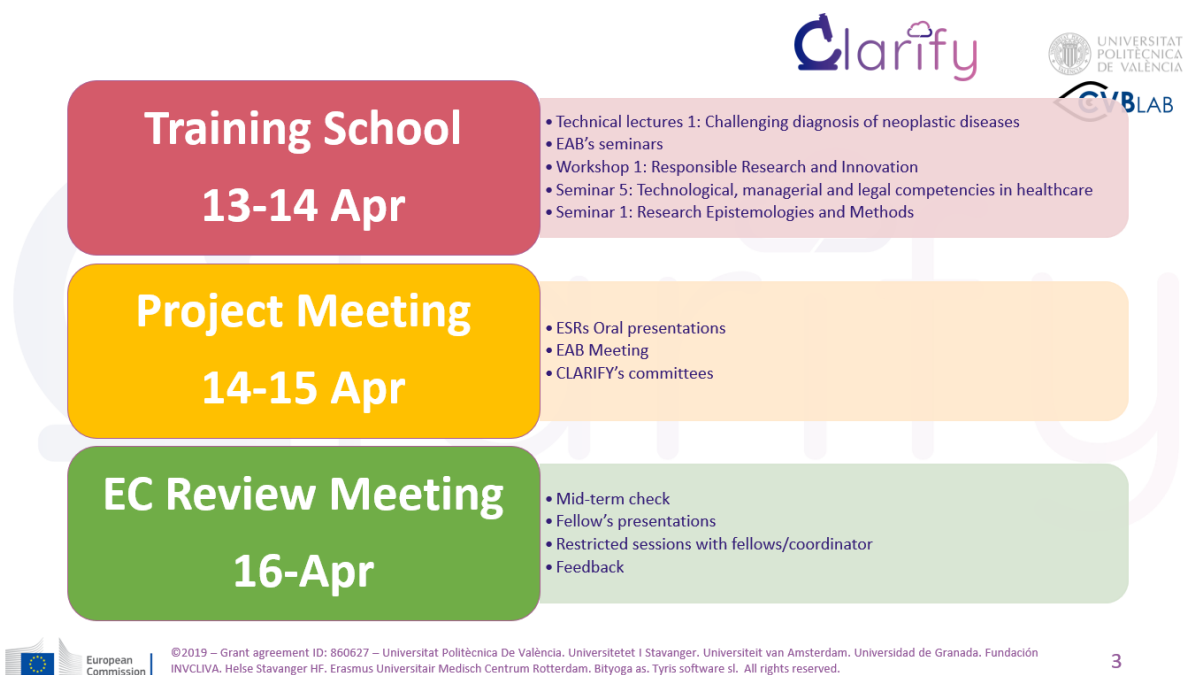


Fig. 5. Structure of the first Annual Progress Meeting

TUE 13-Apr-2021. TRAINING SCHOOL				
Time	Slot	Topic	Leader	Speaker
8:30	0:30	Introduction session: Project General Overview	UPV	Valery Naranjo
9:00	1:30	Technical lectures 1: Challenging diagnosis of neoplastic diseases Course I. Malignancy determination in spitzoid melanocytic tumours	INCLIVA	Carlos Monteagudo
10:30	0:15	Coffee break		
10:45	1:30	Technical lectures 1: Challenging diagnosis of neoplastic diseases Course III. Triple Negative Breast Cancer. Different prognostic and predictive subtypes	SUH	Emiel Janssen
12:15	1:15	Lunch		
13:30	1:30	Technical lectures 1: Challenging diagnosis of neoplastic diseases Course II. Diagnosis and prognosis of bladder cancer	EMC	Tahlita Zuiverloon
15:00	0:15	Coffee break		
15:15	1:00	EAB seminar: Image-based methodologies and machine learning based platforms for risk prediction and clinical decision making in breast cancer	EAB member	Ritu Aneja
16:15	0:15	Coffee break		
16:30	0:30	EAB seminar: Cutaneous malignant melanoma: from histologic to genetic classification	EAB member	Eugen Petcu
17:00	0:30	EAB seminar: New genetic classification of spitzoid tumors	EAB member	Victor G Prieto
WED 14-Apr-2021. TRAINING SCHOOL & PROJECT MEETING				
8:30	0:35	Workshop 1: Responsible Research and Innovation (RRI) I. Ethical issues in biomedical research	UVEG	Andrés Cervantes Rui Pérez Tania Fleitas Kannonikoff
9:05	0:35	Workshop 1: Responsible Research and Innovation (RRI) I. Open Science	UVEG	Ignasi Labastida i Juan
9:40	0:05	Coffee break		
9:45	0:35	Workshop 1: Responsible Research and Innovation (RRI) I. Gender aspects management in engineering research	UVEG	Petra Amparo López Jiménez
10:20	0:15	Coffee break		
10:35	1:40	Seminar 5: Technological, managerial and legal competencies in healthcare	LYN	Edwin Morley-Fletcher
12:15	1:15	Lunch		
13:30	1:00	Seminar 1: Research Epistemologies and Methods	EMC	Kamran Ikram



Fig. 6. Programme of the 1st Training School.

Technical lectures 1

In the introduction session, Prof. Valery Naranjo, as coordinator of the project, welcomed the attendees, gave a quick look at the agenda of the week, and introduced the members of the EAB and other speakers that were going to participate in the training school.

The first edition of technical lectures was called “Challenging diagnosis of neoplastic diseases” and was focused on the following topics to cover the diagnosis and prognosis of the three example diseases that are studied in the project.

- Malignancy determination in spitzoid melanocytic tumours.
- Triple Negative Breast Cancer. Different prognostic and predictive subtypes.
- Diagnosis and prognosis of bladder cancer.

Technical Lectures were given by some CLARIFY supervisors (Carlos Monteagudo, Emiel Janssen and Tahlita Zuiverloon, respectively). To complement these technical lectures, some of the EAB members gave three additional seminars:

- Image-based methodologies and machine learning based platforms for risk prediction and clinical decision making in breast cancer by Ritu Aneja.
- Cutaneous malignant melanoma: from histologic to genetic classification by Eugen Petcu.
- New genetic classification of spitzoid tumors by Víctor G Prieto.

Fig. 7 and 8 present the speakers of the technical lectures and the associated EAB’s seminars. Fig. 9 – 14 include some screenshots taken during their presentations.



Fig. 7. Speakers of the Technical Lectures 1.



Fig. 8. Speakers of the EAB's seminars associated to the Technical Lectures 1.



The diagnostic and prognostic evaluation of Spitzoid melanocytic tumors is still currently an unresolved challenge

We need an additional approach!

Artificial Intelligence (CLARIFY) may be the answer!!!



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Fig. 9. “Malignancy determination in spitzoid melanocytic tumours” presentation by Carlos Monteagudo.

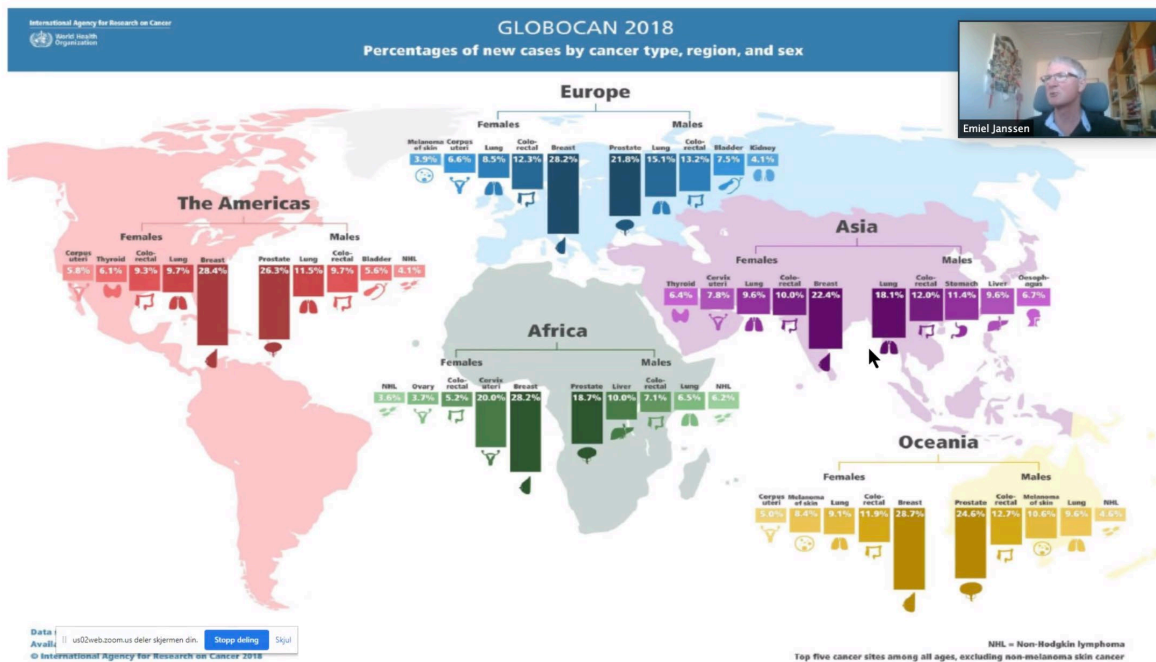


Fig. 10. “Triple Negative Breast Cancer. Different prognostic and predictive subtypes” presentation by Emiel Janssen.

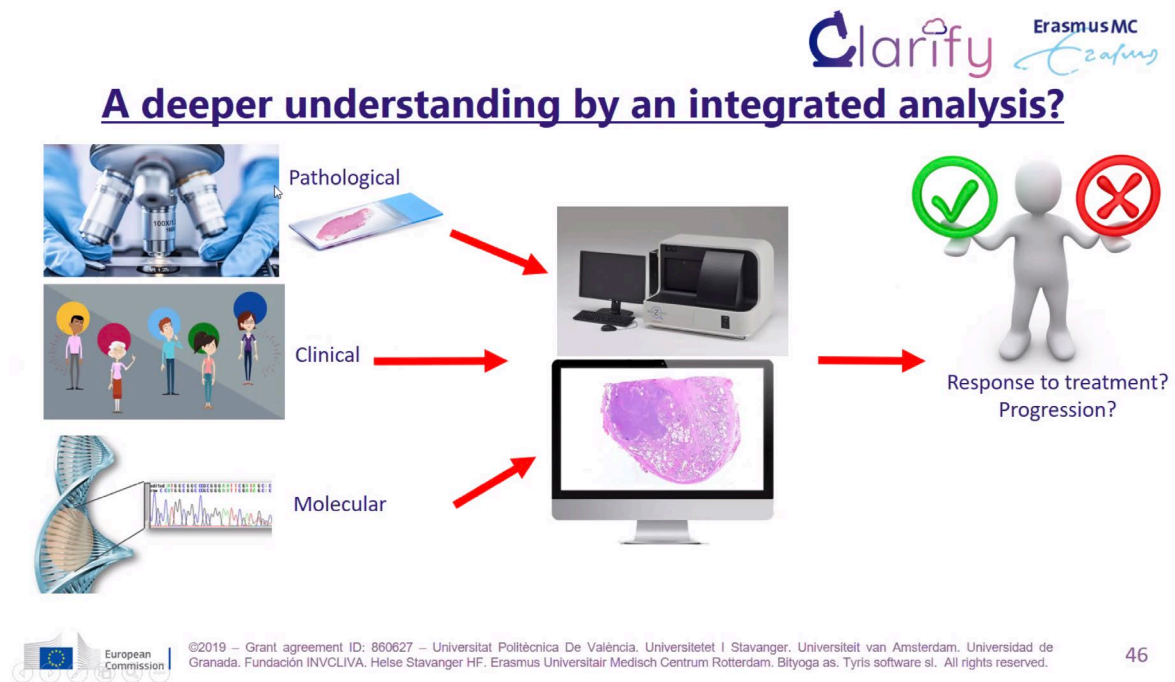


Fig. 11. “Diagnosis and prognosis of bladder cancer” presentation by Tahlita Zuiverloon.

Roadmap

1

Breast cancer and racial disparity 101

2

ICART (International Consortium for Advancing Research on TNBC)

3

ML approaches and Imaging based methodologies

Fig. 12. “Image-based methodologies and machine learning based platforms for risk prediction and clinical decision making in breast cancer” presentation by Ritu Aneja.

Superficial Spreading Melanoma

Superficial spreading melanoma is the most common type of melanoma.
 Approx. 2/3 of melanomas
 The malignant melanocytes would remain in the epidermis for a very period of time: IN SITU
 Radial Growth Phase
 Vertical Growth Phase
 The % of cases that penetrate the basement membrane and enter dermis is unknown

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Fig. 13. “Cutaneous malignant melanoma: from histologic to genetic classification” presentation by Eugen Petcu.

Description

- Nevi (“moles”):
- Any age, more common in children and young adults
- Almost any location, more common on face and extremities
- Well circumscribed
- Uniformly colored

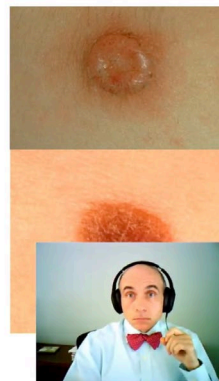


Fig. 14. “New genetic classification of spitzoid tumors” presentation by Victor G Prieto.

Workshop 1

The workshop 1 on “Responsible Research and Innovation I” was divided in three talks given by invited speakers of recognized prestige on the subject:

- Ethical issues in biomedical research by Andrés Cervantes Ruipérez and Tania Fleitas Kannonikoff.
- Open Science by Ignasi Labastida i Juan
- Gender aspects management in engineering research by Petra Amparo López Jiménez.

Fig. 15 presents the speakers of the Workshop 1 and Fig. 16 – 18 include some screenshots taken during their presentations.



Prof. Andrés Cervantes Ruipérez
Head of the Oncology Department
Clinic University Hospital of Valencia
Department of Medicine
University of Valencia
Director of the INCLIVA Biomedical
Research Institute



Dr. Tania Fleitas Kannonikoff
Department of Oncology
Clinic University Hospital of Valencia
Scientific Researcher at INCLIVA
Biomedical Research Institute



Dr. Ignasi Labastida i Juan
Head of the CRAI Unit of
Research and Innovation
University of Barcelona



Prof. P. Amparo López Jiménez
Director of Department of Hydraulic
Engineering and Environment
Universitat Politècnica de València

Fig. 15. Speakers of the Workshop 1.



Fig. 16. “Ethical issues in biomedical research” presentation by Andrés Cervantes Ruipérez and Tania Fleitas Kannonikoff.



Fig. 17. “Open Science” presentation by Ignasi Labastida i Juan



The future:
Gender is a key dimension in research
 in the following ways:

- The **societal transformations that the new gender roles have generated** need of **innovative tools** to deal with everyday life, education of children, housing, urban plans and distribution of working time.



Fig. 18. “Gender aspects management in engineering research” by Petra Amparo López Jiménez

Seminars

During the Training School, in addition to Workshop 1, took place two seminars to cover more transferable skills:

- Seminar 1 on “Research Epistemologies and Methods” by Kamran Ikram (EMC)
- Seminar 5 on Technological, managerial and legal competencies in healthcare by Edwin Morley-Fletcher (LYN)

Fig. 18 presents the speakers of those seminars and Fig. 19 – 20 include some screenshots taken during their presentations.



Fig. 15. Speakers of the Seminar 1 and 5.

Why study epidemiology?

A → B

<ul style="list-style-type: none"> ▪ High blood pressure causes MI ▪ Mass on X-thorax indicates lung cancer ▪ Frailty predicts mortality ▪ Clopidogrel prevents stroke 	<ul style="list-style-type: none"> ▪ <i>Etiognosis</i> ▪ <i>Diagnosis</i> ▪ <i>Prognosis</i> ▪ <i>Treatment</i>
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Fig. 19. “Research Epistemologies and Method” presentation by Kamran Ikram

An infographic image of blockchains in healthcare

Source: Khezri, S. et al. (2019). Blockchain technology in healthcare: a comprehensive review and directions for future research.

CLARIFY 1st Training School – Seminar 5 – 14 April 2021

Fig. 20. “Technological, managerial and legal competencies in healthcare” presentation by Edwin Morley-Fletcher