

PROJECT COMPLETION REPORT

“Development of Tissue repository”

U-COST NO. UCS & T / R & D / MED. SC. - 02 / 11-12 / 3990

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Dr. Neena Chauhan (Professor & In-charge Tissue Repository)

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Executive Summary of the project :

A research driven clinical care is essential to address the health care needs of local population. Scientific knowledge existing in literature & treatment protocols defined needs to be seen in reference to the local population.

Tissue banking for research in cell biology & drug development is well established in many developed nations. However in India this concept is just coming up. Tissue samples are stored and processed forever in addition to the clinical data which reflects the biological characteristics of tumor in that particular patient. These tissue samples are made available for basic research to various research labs engaged in research on cell biology, drug development etc.

The project entitled “**Development of Tissue Repository**” in Cancer Research Institute; HIHT was approved by UCOST on 21 Dec 2011. During the first year, furnished rooms were allocated for tissue repository and provided computer facilities. Liquid nitrogen containers for transporting fresh tissue specimens and deep freezer for storing the samples were apportioned. The function was allied with main pathology laboratory for processing of tissues & storage. A full time Pathologist was delegated the responsibility for Tissue Banking (Dr Neena Chauhan MD Professor, Department of Pathology). A Research Fellow (Ms. Sakshi Rana Msc in Applied Microbiology and Biotechnology) was also recruited and trained to carry out the necessary activities like conducts in operation theater, tissue procurement, data collection etc. by a team of consultant surgeons. Training of personnel, awareness of consultant surgeons, resident doctors & clinicians were carried out for proper functioning and management of tissue repository. Standard Operating Procedure (SOP) for the collection, processing and storage of fresh tissues is prepared and computerized data storage systems were developed. With the consent of the patients, procurement and storage of samples were started and their related clinical records were maintained as hard copy as well as electronically. The samples are stored as fresh frozen tissues, paraffin blocks and HE stained slides.

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Dr. Akash Gaiind Assistant Professor , Surgical Oncology , CRI, SRHU
Dr. Anshika Arora Assistant Professor , Surgical Oncology , CRI, SRHU

Research Fellow : Mr Bhupen Singh , Mr Vaibhav Gupta , Ms Sakshi Rana
Technologist : Mr Lalit Tewari

Implementing Institution and other collaborating Institutions :

**Sushila Tiwari Memorial Cancer Research Institute (CRI)
Swami Rama Himalayan University ,
Jolly Grant , Dehradun Uttarakhand**

Date of commencement

April 2012

Planned date of completion

March 2015

Actual date of completion

March 2016

Objectives as stated in the project proposal achieved :

Achievements from April to Dec 2012

Sl. No.	Sample Size	April to Dec. 2012
1	Total No of cases	670
2	Total No. of Fresh frozen specimen	204

3	Total No. of Paraffin Blocks	1300
4	Total No. of HE stained Slides	1300

Table No. 1

Achievements from Jan to Dec 2013

Sl. No.	Sample Size	Jan to Dec. 2013
1	Total No of cases	814
2	Total No. of Fresh frozen specimen	229
3	Total No. of Paraffin Blocks	1525
4	Total No. of HE stained Slides	1525

Table No. 2

Achievements from Jan to Dec 2014

Sl. No.	Sample Size	Jan to till date 2014
1	Total No of cases	777
2	Total No. of Paraffin Blocks	1554
3	Total No. of HE stained Slides	1554

Table No. 3

Achievements from Jan to Dec 2015

Sl. No.	Sample Size	Jan to Dec. 2015
1	Total No of cases	1455
3	Total No. of Paraffin Blocks	3910
4	Total No. of HE stained Slides	3910

Table No. 4

Achievements from Jan to Dec 2016-17

Sl. No.	Sample Size	April to Dec. 2016-17
1	Total No of cases	2319
2	Total No. of Fresh frozen specimen	852
3	Total No. of Paraffin Blocks	2319
4	Total No. of HE stained Slides	4000

Table No. 5

Malignant cases from all the organs are included. The samples are labeled accordingly and stored systematically. Organ wise distribution of various malignant tumors is given in tables;

Table No. 6

Sl. No.	Organs	No. of samples April to Dec. 2012
1	Head and Neck	184
2	Breast	141
3	GIT	122
4	Gall Bladder	12
5	Pancreas	04
6	Soft tissue tumor	29
7	Lymph Nodes	18
8	FGT	113
9	MGT	09
10	Genital Urinary	06
11	Lung	14
12	Skin	08
13	Bone	02
14	Thorax	02
15	Brain	02

Table No. 7

Sl. No.	Organs	No. of samples Jan to Dec. 2013
1	Head and Neck	202
2	Breast	180
3	GIT	174
4	Gall Bladder	13
5	Pancreas	04
6	Soft tissue tumor	15
7	Lymph Nodes	12
8	FGT	126
9	MGT	15
10	Urinary	13

11	Lung	23
12	Skin	18
13	Bone	12
14	Thorax	02
15	Brain	01
16	Eye	04

Table No. 8

Sl. No.	Organs	No. of samples Jan to Dec. 2014
1	Head and Neck	184
2	Breast	147
3	GIT	143
4	Gall Bladder	24
5	Pancreas	03
6	Soft tissue tumor	13
7	Lymph Nodes	31
8	FGT	124
9	MGT	19
10	Urinary	08
11	Lung	40
12	Skin	08
13	Bone	16
14	Thorax	04
15	Brain	04
16	Eye	09
Sl. No.	Organs	No. of samples Jan to Dec. 2015
1	Head and Neck	255
2	Breast	241
3	GIT	272
4	Gall Bladder	252
5	Pancreas	08

Table No. 9

6	Soft tissue tumor	38
7	Lymph Nodes	50
8	FGT	177
9	MGT	35
10	Urinary	16
11	Lung	48
12	Skin	26
13	Bone	21
14	Thorax	02
15	Brain	12
16	Eye	02

Table No. 10

Sl. No.	Organs Clubb data	No. of samples
	(Total No. of parafin block)	April to Dec. 2016-17
1	Head and Neck	305
2	Breast	455
3	GIT	1133
4	FGT	272
5	MGT	26
6	Sarcoma / Bone	37
7	Mixed	42
8	Brain / Spine	18
10	Lymphoma	16
12	Thoracic	15

Deviation made form the original objectives if any, while implementing the project and reasons thereof. None

Importance of the study in context to the State : More than 6000 cancer tissue samples have been stored at this repository which are available for research in the filed of cancer control.

Conclusions summarizing the achievements and indications of scope for future work : Projectvachieved its objectives. Facilities established would continue to enrich the repository with additional tissues samples.

Paper presented / published

- A paper arising from the tissue repository entitled “Profile of Triple Negative & Luminal Breast Cancer in Uttarakhand” was presented at –32nd Annual Convention of Indian Association for Cancer Research in New Delhi. The institute has plans to work in collaboration with other institutes in many research activities on no profit no loss basis sustaining the activities of tissue bank.
- With the support of UCOST funded project entitled “Development of Tissue Repository”, a collaborative studies on “Molecular Testing of Triple Negative Breast Cancer and Luminal Breast Cancer” between the University of Alabama at Birmingham, US and the Cancer Research Institute, HIHT, Dehradun is under process.
- Jain N, Saini S, Singh VP, Saini M, Chauhan N. Intraabdominal germ cell tumor in bilateral undescended testis: A case report. *Indian Journal Of Cancer*. Nov 2013, vol 50, suppl 1, pp s 71
- Jain N, Saini S, Singh V, Saini M, Chauhan N. Invasive squamous cell carcinoma of the conjunctiva: A case report. . *Indian Journal Of Cancer*. Nov 2013, vol 50, suppl 1, pp s 201
- Meenu Gupta, Pruthi DS, Gupta M, Tiwana M, Srivastava A, Saini M, Chauhan N, Saini S, Outcome of definitive IMRT in carcinoma oropharynx. *Indian Journal of Cancer Vol 50 Supp. 1 Nov 2013 pp.s 132*
- Meenu Gupta Ravikant, Saini M, Srivastav A, Bansal S, . A dosimetric criteria for patient treatment selection : IMRT or 3DCRT ?? In high grade gliomas *Indian Journal of Cancer Vol 50 Supp. 1, Nov 2013 pp.s 197*
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palliation in inoperable non- small cell lung cancer: A quantitative assessment. *Indian Journal of Cancer Vol 50 Supp. 1, Nov 2013 pp. s 254*

- Gupta M, Sehgal N, Gupta M, Saini M, Chauhan N, Saini S. Outcome of radiotherapy for sub-himalayan elderly patients with cervical cancer: A single institution experience. *Indian Journal Of Cancer*. Nov 2013, vol 50, suppl 1, pp s 286
- Gupta M, Utreja N, Gupta M, Saini M, Bansal S, Saini S. Outcome of external beam radiotherapy in elderly patients with solid tumor in sub-himalayan population: A single institution experience. *Indian Journal Of Cancer*. Nov 2013, vol 50, suppl 1, pp s 286
- A research paper entitled “Pathological profile of Gastrointestinal Cancer Tissue Repository in Cancer Research Institute” was presented by Miss Sakshi Rana in the 10th Uttarakhand state Science and Technology Congress 2015-16.