



UFPTI: Facility Startup, Operational, and Training Issues

Nancy Price Mendenhall, M.D.



Disclosures

- Educational grants from IBA



UFPTI Startup Experience

- Background
- General Issues
 - Facility
 - Equipment
 - Staffing
 - Training
 - Operations
- Lessons



UFPTI Startup Experience

- Background
 - Guiding principles
 - Increase the therapeutic ratio
 - Research
 - Prioritization
 - Responsibility to stakeholders



Project Timeline

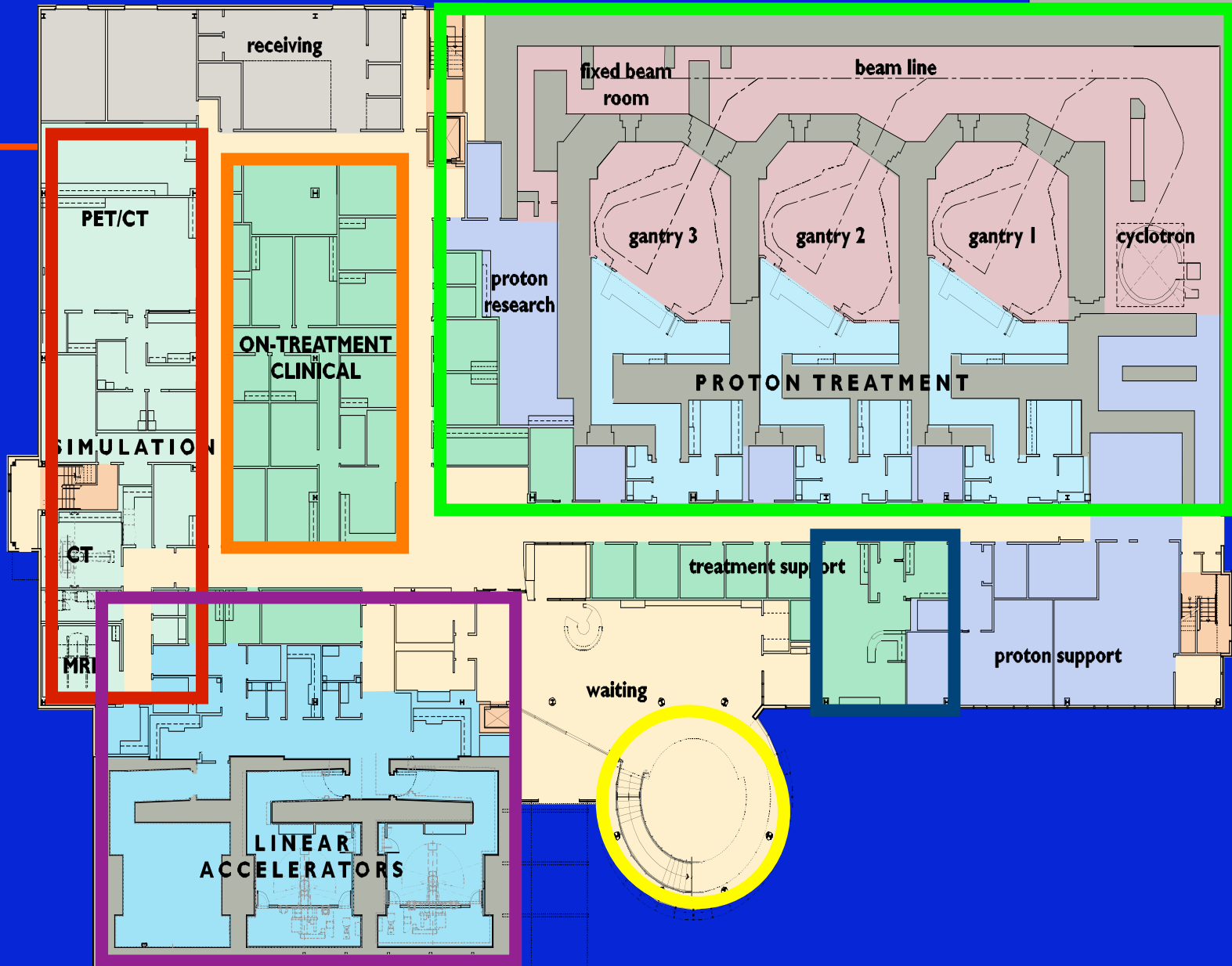
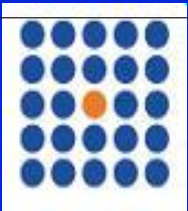
- 1998 – Concept presented to COM Dean
- 1998 to 2002 – Feasibility and planning
- January, 2003 – Ceremonial groundbreaking
- December, 2003 – Bond closing
- January, 2004 – Construction begins
- Winter, 2005 - Initiated payment discussions
- February, 2005 – Arrival of cyclotron
- March, 2005 – Equipment installation begins



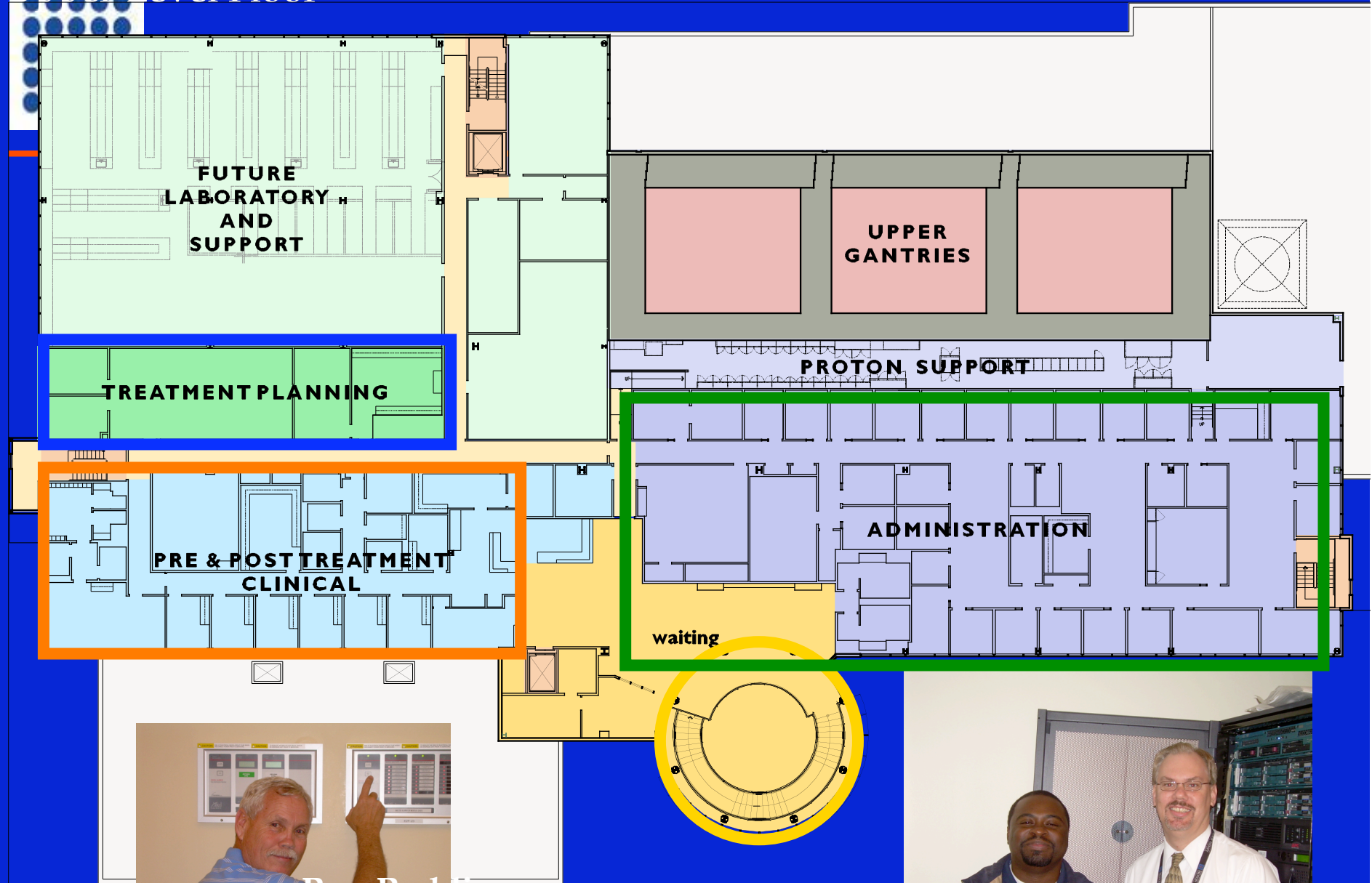
UFPTI Startup Experience

- Facility

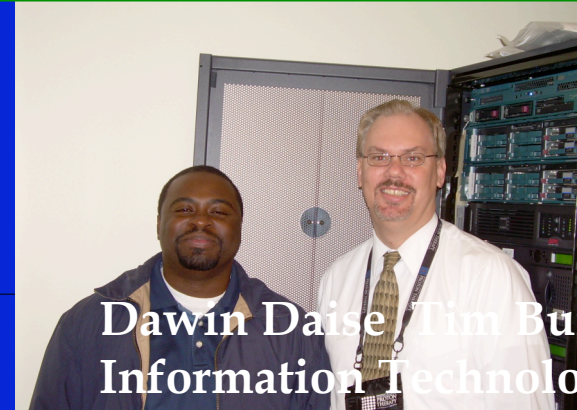
- Weekly and monthly meetings with builder, architect, vendor, UF facilities, UF project manager, Dr. Palta and members of medical physics, (Medical director)



Upper Level Floor



Ron Redding,
Facility Manager



Dawin Daise / Tim Buist
Information Technology



Project Timeline (Cont.)

- April, 2006 - Linear Accelerators installed
- July, 2006 - First gantry completed
- July, 2006 - Eclipse
- July, 2006 - Mosaic



UFPTI Startup Experience

- Equipment



UFPTI Startup: Equipment

- Conventional X ray Machines
- Simulation
 - CT simulator
 - PET-CT
 - MR
- Proton Equipment
 - Cyclotron
 - Three gantries
 - One fixed beam
 - Milling machines
- Software
 - Eclipse
 - Pinnacle
 - IMPAC (MOSAIC)
- Installation





UF Commissioning Per Gantry

Overview of the expected commissioning load:

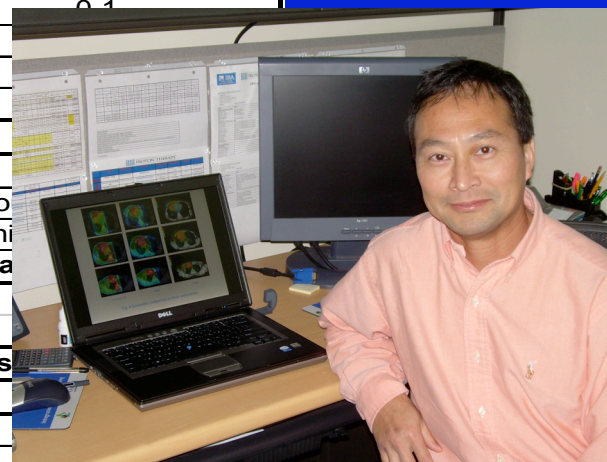
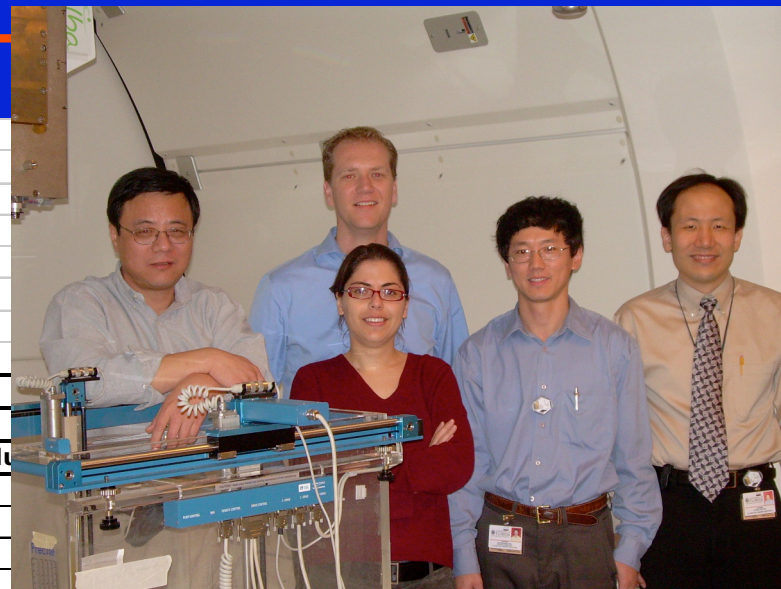
number of gantries	1
number of DS options (per gantry)	8
number of SS options (per gantry)	5
total scattering options (per gantry)	13

Measurements & Tests

Type of measurements	Total duration [h]	Total duration [days]
Pre-liminary beam measurements	8	
Dose distribution measurements	304	
Radiation protection measurements	22	
Commissioning Eclipse	13	
Alignment validation	20	0.5
Safety validation	3	0.1
System Integration and Process Validation	16	
Training sessions	40	
Mock treatments	88	

Total	514	hours
	64	8+2 hours
	64	one-shift
	12.8	five-days

Total commissioning duration	12.8	weeks
projected start date	4/15/06	
projected finish date	7/13/06	





UFPTI Startup Experience

- Staffing
 - Core
 - Schedule for growth



UFPTI Startup Core

- Medical Director
- Clinical Physics Director
- Executive Director
- Technical Director
- Nursing Director
- Director of Patient Services
- Chief Dosimetrist
- Facility Manager
- IT Director
- Office Manager
- Billing Director





UFPTI Startup Experience

- Training
 - Other facilities
 - On the job
 - Relative value of experience in conventional therapy and particle therapy

LLUMC
MGH
CPO
Wanje
(PSI)

FCCJ



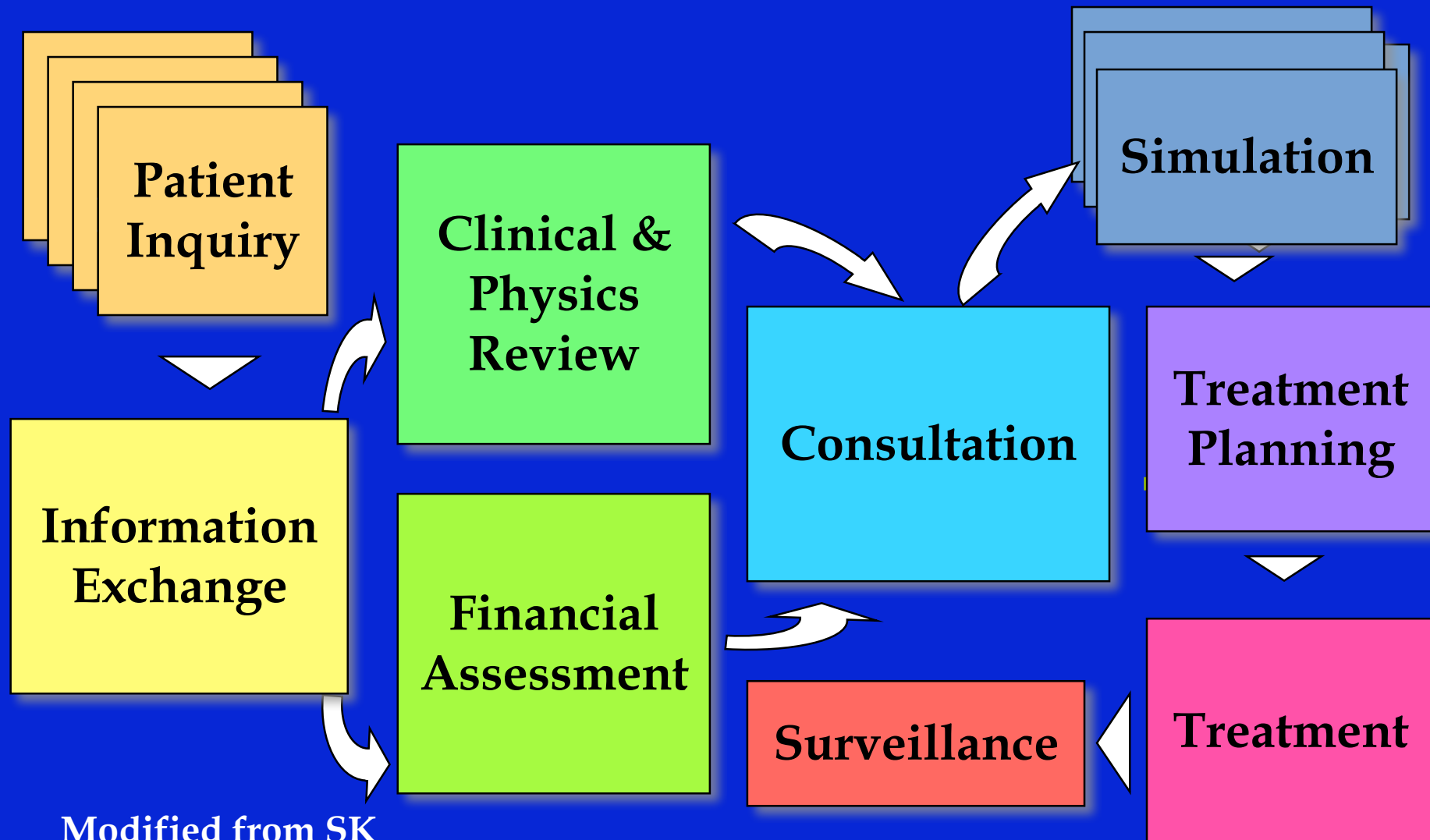


UFPTI Startup Experience

- Operations
 - Protocols, procedures, policies
 - Develop, monitor, revise



Patient flow diagram – from patient inquiry through treatment





Project Timeline (Cont.)

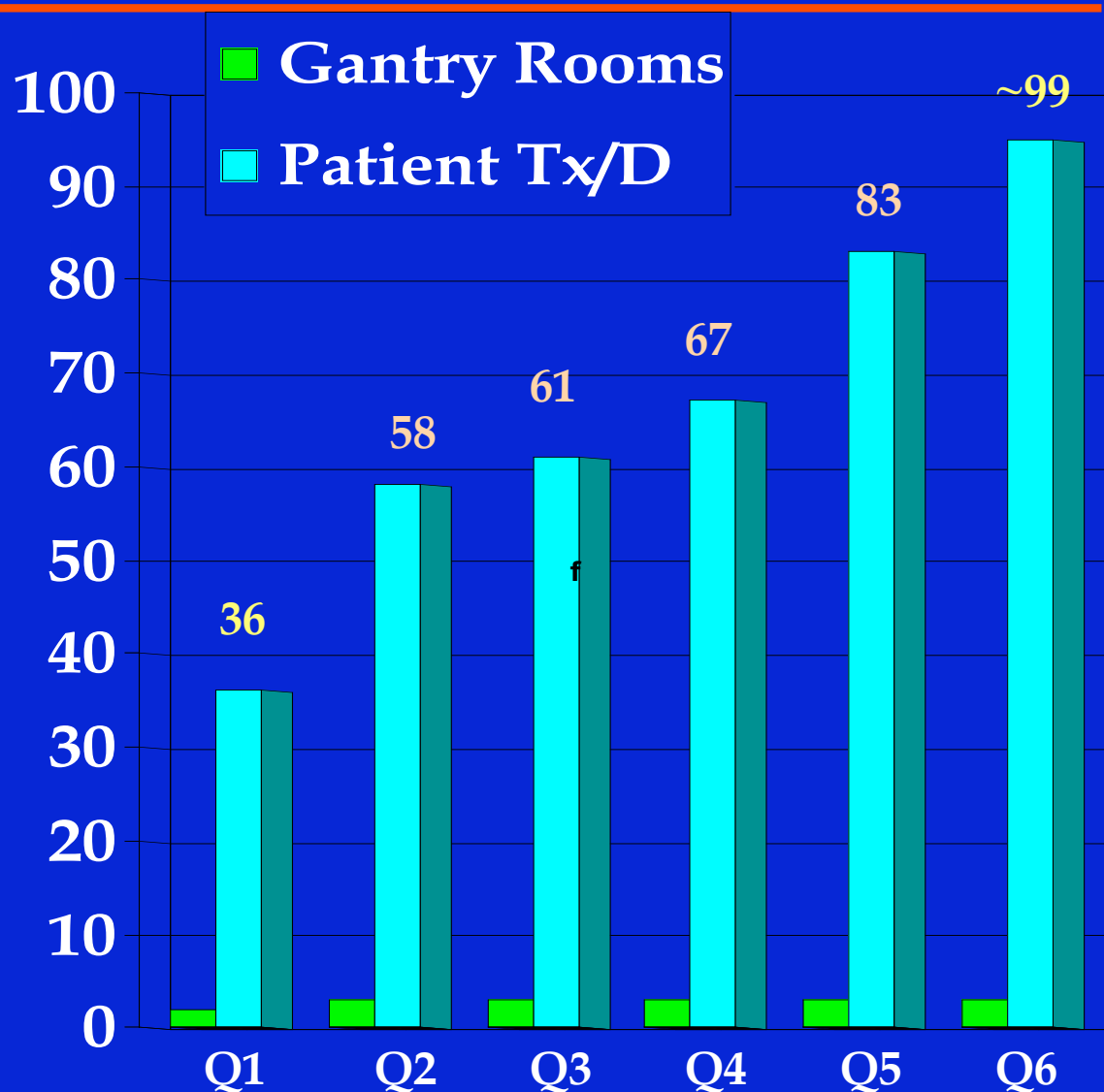
- April, 2006 - Linear Accelerators installed
- July, 2006 - First gantry completed
- July, 2006 - Eclipse
- July, 2006 - Mosaic
- August, 14, 2006 - 1st proton treatment
- January, 2007 - Second Gantry
- April 2007- Third Gantry
- August, 2007-Start XRT treatment



UFPTI 2007-08 Average Daily Treatment Volumes

Peak: 107

Hours: 6:30 – 9:30





UFPTI Milestones

- 08-14-06: 1st patient, prostate ca
- 09-14-06: 1st pediatric patient (Ewing's)
- 01-16-07: 1st clival chordoma
- 01-31-07: 1st pediatric CSI
- 03-12-07: 1st peds anesthesia
- 03-19-07: 1st patch-through BOS
- 07-24-07: 1st spinal chordoma
- 09-25-07: 1st oropharynx
- 11-07-07: 1st mediastinal Hodgkin's
- 04-03-08: 1st pancreas
- 05-07-09: 1st lung cancer



UFPTI Clinical Research Program

Closed Protocols		
PR01	Low Risk Prostate	89
PR02	Intermediate Risk Prostate	84
PR03	High Risk Prostate	44



UFPTI Clinical Research Program

Open Protocols		
OTP	Outcome Tracking	519*
CH01	Chordoma and Chondrosarcoma	19
PC01	Unresectable Pancreas	0
SI01	Sinus	0
NP01	Nasopharynx	0
OP01	Oropharynx	0
SK01	Skin with PNI	0
PI01	Pituitary Adenoma	0

*9 patients have declined to go on the OTP.



UFPTI Clinical Research Program

Protocols in Development		
PR04	Low/Intermediate Risk Prostate-hypofractionation	Submitted to IRB
PR05	High Risk Prostate-CMT with ENI	Under review
SA01	Sarcoma (Multimodality)	Under review
CS01	Craniospinal Irradiation	Proposed
PC02	Preop for Borderline/Resectable Pancreas	Proposed
HD01	Hodgkin's (LMM)	Proposed



UFPTI Startup Experience

- Lessons
 - Planning (robust)
 - Flexibility



Holding Down the Fort

Open Conventional Radiation Therapy at UFPTI in 05-06

Actual: Conventional Radiation Therapy at UFPTI in 09-07





Critical Faculty on two campuses: The Shirley Shuttle





The Prostate Program

Daily treatment fields

Prostate
Overall: 75%
G1: 15%
G2: ~50%
G3: 100%





UFPTI Startup Experience

- Lessons
 - Guiding principles
 - Persistence, patience



The Pediatric Program

Dependence on other specialities

Highest priority, but additional
resources needed
Dedicated pediatric
anesthesiologists and nurses and
faculty depth





UFPTI Startup Experience

- Lessons
 - Patience, persistence, luck



- Alignment of the stars





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