



**BLUEFIELD REGIONAL  
MEDICAL CENTER**

DL-081495\_02

*August 14, 1995*

**USNRC**  
**Region II**  
**101 Marietta Street NW, Suite 2900**  
**Atlanta, GA 30323-0199**

***RE: License Number 47-19142-01  
License Number 47-19142-02***

***Mr. Earl G. Wright,***

***Please allow these amendment applications to reflect the following changes:***

- 1. Please add Yuenian Zhang, Ph.D. as the Medical Physicist for license #47-19142-01 and the Teletherapy Physicist for license # 47-19142-02. Reference the enclosed grade transcripts and resume for details of Dr. Zhang's education and experience.***
- 2. Change the Radiation Safety Officer delegations to the following:***
  - a. For the byproduct material license # 47-19142-01 we request that the Radiation Safety Officer be Daniel T. Fowler, M.D. and the Alternate Radiation Safety Officer be Dana O. Olson, M.D.***
  - b. For the teletherapy license #47-19142-02 we request that the Radiation Safety Officer be Charles M. Olmsted, M.D. and the Alternate Radiation Safety Officer be Pushpa Rani Jain, M.D.***

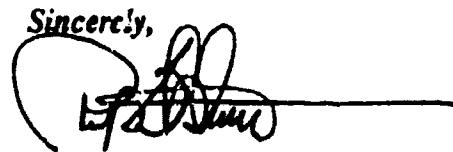
***Please reference both the byproduct and teletherapy licenses for experience and education credentials for the above listed physicians.***

***Additionally, please be reminded that a notice to the commission was sent on May 4, 1995 naming Lee B. Milner M.D. as an authorized user of materials identified in 10 CFR 35.100, and 35.200 pursuant to the new 10 CFR part 35 regulations.***

**USNRC**  
**August 14, 1995**  
**PAGE 2, 1995**

***NOTE: All changes to the byproduct material license # 47-19142-01 should be carried through to the license renewal application previously submitted. (Control # 256335)***

***Thank you for your attention to this matter.***

*Sincerely,*  


***Phil Stephens, Vice President  
Support Services***

***cc: PCS/sr***

# **Yuenian (Neal) Zhang, Ph.D.**

*Bluefield Regional Medical Center*

*500 Cherry Street, Bluefield, WV 24701*

*Tel: 304-327-1540 (office) & Fax: 304-327-1554*

---

## **EMPLOYMENT**

**7/95-present Physicist, Bluefield Regional Medical Center, Bluefield, West Virginia**

- QA of radiotherapy, diagnostic, nuclear medicine physics, and radiation safety.

**8/93-7/95 Research Assistant, ADCL, Department of Medical Physics, UW - Madison**

- Quality assurance of radiotherapy linear accelerators (Varian Clinac-4, Clinac-2100C, and Clinac-2500), which includes daily, weekly, monthly, and semi-annually test using both solid water phantoms and water tanks (following AAPM Task Group-21).
- Acceptance test and commissioning of radiotherapy linear accelerators (Varian - 2100C).
- Patients radiotherapy treatment chart checking and radiation dosimetry verification.
- High dose rate (HDR) intracavitary and interstitial brachytherapy QA and treatment planning using a Nucletron Microselection remote afterloader (Ir-192 source).
- Low dose rate (LDR) brachytherapy pre-treatment and post-treatment planning and implants (I-125 eye plaque and Ir-192 intracavitary and interstitial brachytherapy).
- Intravenous Strontium-89 injections for bone marrow metastases.
- Handling brachytherapy and nuclear medicine radioisotopes in hospital and clinics, as well as their radiation safety management after treatment and imaging procedures.
- Patient CT scan operation and treatment simulation on the radiotherapy simulators.
- Treatment planning based on CT images and/or simulation films using Theratronics' Theraplan treatment planning system and PROWESS treatment planning system.
- Clinical radiation oncology physics support for a satellite clinic at Beloit, Wisconsin.
- 3-D treatment planning systems and conformal radiotherapy and radiosurgery.
- Stereotactic radiosurgery (CT/MRI scan, planning, Clinac QA, and treatment).
- Radiation shielding design for linear accelerators, diagnostic x-ray, and MRI machines.
- Hospital and cancer treatment clinic radiation safety and personnel monitoring and protection using both lithium fluoride thermoluminescent dosimeter (TLD) and film.
- Weekly radiation oncology patients chart round and corresponding treatment options.
- Radiation oncology training sessions for clinical radiation oncology residents.
- QA testing for various diagnostic modalities such as x-ray, mammography, computed tomography (CT), magnetic resonance imaging (MRI), and ultrasound (US) machines.
- Nuclear medicine QA and imaging procedures. e.g. Gamma camera, SPECT, and PET.
- kVp meters, kVp film cassettes, survey meters, and diagnostic ion chambers.
- Operation and QA of Co-60 and Cs-137 radiation calibration sources at ADCL.
- TLD strip to measure half value layers and exposures for mammography units.
- Dosimetric characteristics and energy response of radiation ion chambers.

---

## ***Education***

- M.S., *Medical Physics*, University of Wisconsin - Madison, Madison, Wisconsin
- Ph.D., Applied Physics, Michigan Technological University, Houghton, Michigan
- M.S., Applied Physics, Michigan Technological University, Houghton, Michigan
- B.S., Physics, Shaanxi Normal University, Xi'an, Shaanxi, P.R.C.

*2005/7*

- 9/91-9/93     **Postdoctoral Research Physicist**, Argonne National Laboratory, Illinois  
Funded by U.S. Department of Energy  
 • Projects on radiation physics, radiation chemistry, and biophysics.  
 • Co-60 and UV irradiation of colloidal TiO<sub>2</sub> for bioremediation.  
 • Synchrotron x-ray (EXAFS) radiation for structures of chemical compounds.
- 5/91-9/91     **Research Associate Physicist**, Michigan Technological University  
Funded by Michigan Technological University Presidential Fellowship  
 • Non-invasive Electron Paramagnetic Resonance imaging method.
- 11/86-5/91     **Graduate Research Assistant**, Michigan Technological University  
Funded by U.S. Department of Defence  
 • Effects of Co-60 radiation induced defects in single crystals.  
 • Magnetic resonance images of gases, liquids, and solids.
- 9/84-7/85     **Research and Development Physicist**, Baoji Color Metal Product & Research Institute, Baoji, Shaanxi, P.R.China  
 • Projects on experimental solid state physics.
- 9/83-2/84     **Research Associate Physicist**, Beijing University, Beijing, P.R. China.  
 • Low-temperature phys' s and superconductivity.
- 2/82-2/86     **Physics Instructor**, Shaanxi Normal University, Xi'an, Shaanxi, P.R. China.  
 • General physics instruction at all levels of the four-year university.

***Certification***

- American Board of Medical Physics (in progress)
  - Part I - July 1995
  - Part II - July 1996
  - Part III - April 1997
- Authorized Operator of the Nucletron High Dose Rate (HDR) Brachytherapy Unit.
- Authorized Operator of the Co-60 Teletherapy Unit (EL-DORADO 78).
- Authorized Operator of the Cs-137 Teletherapy Unit and Calibration Source.
- Certified Radiation Worker (University of Wisconsin Radiation Safety Division).

***Computer Experience***

- Computer Systems: Unix, VAX/VMS, IBM/PC, and Macintosh.
- Computer Languages: C++, Fortran, Pascal, and Basic.

***Professional Society***

- Member, American Association of Physicists in Medicine (AAPM).
- Member, Health Physics Society (HPS).
- Member, American Physical Society (APS).

***Reference***

Dr. Larry A. DeWerd  
Director of Accredited  
Dosimetry Calibration Lab  
1300 University Avenue  
Madison, Wisconsin 53706  
Tel: 608-262-0378

Dr. Bruce R. Thomadsen  
UW Hospital & Clinics  
Radiotherapy, K4/B100  
600 Highland Avenue  
Madison, Wisconsin 53792  
Tel: 608-263-9960

Dr. Bhudatt R. Paliwal  
UW Hospital & Clinics  
Radiotherapy, K4/B100  
600 Highland Avenue  
Madison, Wisconsin 53792  
Tel: 608-263-8514

## UNIVERSITY OF WISCONSIN - MADISON TRANSCRIPT

STUDENT: YUENIAN  
 SRES: BS 06/82 SHAANXI TEACHER'S UNIV CHINA  
 MS 05/89 MICHIGAN TECHNOLOGICAL UNIVERSITY Houghton, MI  
 PHD 05/91 MICHIGAN TECHNOLOGICAL UNIVERSITY Houghton, MI  
 MAJOR: MEDICAL PHYSICS

		CRS	GR	Pts
1993-94	GRM 5 GRADUATE			
PHYS 463 RADIOISOTOPES-MED & BIOLOGY	3	B		
PHYS 501 RADIOLOGICAL PHYSICS&DIAGNOSTIC IMAGING	3	B		
PHYS 567 PHYSICS-DIAGNOSTIC RADIOLOGY	3	B		
PHYS 900 JOURNAL CLUB AND SEMINAR	1	A		
1993-94	GRM 5 GRADUATE			
PHYS 265 INTRO-MEDICAL PHYSICS	AU	S		
PHYS 410 RADIOBIOLOGY	2	AB		
PHYS 566 PHYSICS OF RADIOTHERAPY	3	A		
PHYS 568 MAGNETIC RESONANCE IMAG(MRI)	AU	S		
PHYS 662 RAD LAB-DIAGNSTC RAD PHYS	1	A		
PHYS 663 RAD LAB-NUC MED PHYSICS	1	A		
PHYS 660 JOURNAL CLUB AND SEMINAR	1	A		
PHYS 990 RESEARCH	1	A		
WINTER 1994	GRM 5 GRADUATE			
PHYS 699 TND READING OR RESEARCH	1	A		
PHYS 990 RESEARCH	1	A		
1994-95	GRM 5 GRADUATE			
PHYS 473 IMAGING IN MEDICINE	AU	S		
PHYS 569 HEALTH PHYSICS	4	A		
PHYS 570 ADV BRACHYTHERAPY PHYSICS	2	A		
PHYS 571 ADV EXTRNL RADIATN ONC PHYS	AU	S		
PHYS 661 RAD-LADIOThERAPY PHYSIC	2	A		
PHYS 990 RESEARCH	1	A		
1994-95	GRM 5 GRADUATE			
PHYS 328 HUMAN ANATOMY	3	B		
PHYS 475 DIAGNOS ULTRASOUND PHYSICS	AU	S		
PHYS 699 IND READING OR RESEARCH	3	A		
PHYS 707 DIGITAL IMAGING:DSA,CT,MRI	AU	S		
PHYS 990 RESEARCH	2	A		
MASTER OF SCIENCE-MEDICAL PHYSICS DEGREE CONFERRED MAY 21, 1995				
MAJOR: MEDICAL PHYSICS				
WINTER 1995	GRM 5 GRADUATE			
PHYS 990 RESEARCH	1	A		
Courses in Progress	2	UNRPTD		
END OF RECORD				

UM 151-30 REV 7/70  
**GRADING SYSTEM**

All credits are based on semester hours. A 4.000 grading system is used. Prior to 1954-55 a 3.00 grading system was used. Intermediate grades of AB and BC were instituted as of September 1973.

GRADE	
GRADE POINTS	GRADE
4	A (Excellent)
3.5	AB (Intermediate Grade)
3	B (Good)
2.5	BC (Intermediate Grade)
2	C (Fair)
1	D (Poor)
0	F (Failure)
	NR (No Report)

**Grades Which Do Not Have Associated Grade Points**

S	S (Satisfactory)
U	Unsatisfactory
CP	(No Credit)
N	Incomplete
I	Incomplete in Credit/No Credit Course
P	In Progress
EI	Extended Incomplete
PI	Permanent Incomplete
DEF	Deferred
EX	Permanently Excused
R	Reassigned
DR	Dropped
W	Withdrawn

**ABBREVIATIONS AND SYMBOLS**

GPA	CR	Number of Credits
GPA	CR	Grade Received
GPA	CR	Grade Points
GPA	CR	Course Taken On a Pass/Fail Basis
GPA	CR	Grades of Failure Or No Report-Credits Do Not Count Toward Degree
GPA	CR	Credit-No Credit Course in Progress
GPA	CR	Repeat Of A Failed Course
GPA	CR	Course Does Not Count Toward Degree
GPA	CR	Course Taken For Honors Credit
GPA	CR	Course Taken For Audit Credit
GPA	CR	Credits Have Been Removed From Cumulative GPA Calculation
GPA	CR	Grade Point Average
GPA	CR	Number of Credits Included In Grade Point Average
DEG CR		Calculation
ADV ST CRS		Program
SEMS		Credits Applicable To Degree Program But Not Earned On UW-Madison Campus
CUM		Semesterly Totals
?	On Credits	Question on Credits
E.I.	in Name	E.I. Name At Bottom Dots

**YEAR LEVEL DEFINITIONS**

1	- FRESHMAN - less than 24 credits or 48 grade points
2	- SOPHMORE - 24 credits and 48 grade points
3	- JUNIOR - 54 credits and 108 grade points
4	- SENIOR - 86 credits and 172 grade points
5	- GRADUATE - A student pursuing a graduate degree
9	- SPECIAL - A student authorized to audit courses only

A middle digit of 8 (e.g. 181) indicates an honors course. Honors courses are also shown by an H immediately preceding course credit. A middle digit of 9 (e.g. 999) indicates courses such as independent study, research, or thesis.

**COURSE NUMBERING SYSTEM**

000 - 099 Special Purpose Courses  
 100 - 299 Undergraduate Courses Not Open to Graduate Students  
 300 - 699 Courses Open to Either Undergraduates Or Graduates  
 700 - 999 Graduate And Professional Courses Including Seminars

A middle digit of 8 (e.g. 181) indicates an honors course. Honors courses are also shown by an H immediately preceding course credit. A middle digit of 9 (e.g. 999) indicates courses such as independent study, research, or thesis.

**INCOMPLETES**

The undergraduate student in letters and seniors must remove the grade of I [Incomplete] by the end of the fourth week of classes in the next semester (excluding summer). The student is otherwise relieved of responsibility for removal of the incomplete. All other undergraduate students and most special students may move the incomplete by the end of the next semester they are in attendance. Incompletes that are not removed by the deadline dates complete may be extended with approval of the student's advisor. Graduate students are not subject to this. Above the incomplete period lines students who are not in attendance for a five year period after an incomplete is received may not remove the incomplete without permission from the Associate Dean. These incompletes remain on the record as permanent incompletes and do not lapse into a W.

**LAW SCHOOL STUDENTS**

To be eligible to continue a student must maintain a weighted average of 77 on completion of two or more semesters of law school residence work. A weighted average of 77 on 90 credits is required for graduation. Beginning September 1970, the Law School has established numerical grades in typical letter grades. According to the following table:

87 - 100	A	77 - 81	C
82 - 86	B	70 - 75	D

For interpretation of Law School grades prior to September 1970, please consult the UW-Madison Law Section or the Registrar's Office.

**NON-LAW SCHOOL STUDENTS**

Non-law School students who take a law School course have their numeric grades converted in accordance with the following table:

85	-	100	A
83	-	84	AB
77	-	82	B
75	-	76	BC
72	-	74	C
54	-	71	D

**MEDICAL SCHOOL GRADES**  
 Detailed information concerning a student's grades relative to standing and clinical performance is available from the student from the UW Medical Medical School Registration Office. The grade of F is available to medical students in Medical School.

# UNIVERSITY OF WISCONSIN - MADISON TRANSCRIPT

NAME: YUENIAN  
STREETS: 3S  
MS  
PHD  
JOR: MEDICAL PHYSICS  
BIRTHDATE: 06/16/58  
CHINA PEOPLE'S REPUBLIC OF  
MICHIGAN TECHNOLOGICAL UNIVERSITY Houghton, MI  
MATRICULATION DATE: 09/02/93

OFFICIAL COPY  
08/07/95 PAGE 31  
THE BACK OF THIS DOCUMENT CONTAINS AN ARTIFICIAL WATERMARK HELD AT AN ANGLE TO VIEW  
THE FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT PROVIDES THAT THIS TRANSCRIPT IS NOT TO BE RELEASED  
TO ANY OTHER PERSON OR AGENCY WITHOUT WRITTEN CONSENT OF THE STUDENT

CRS GR PTS

1993-94 CRM 5 GRADUATE  
PHYS 463 RADIOISOTOPES MED & BIOLOGY 3 B  
PHYS 501 RADIOLOGICAL PHYSICS& DOSIMETRY 3 B  
PHYS 567 PHYSICS-DIAGNOSTIC RADIAL 3 B  
PHYS 900 JOURNAL CLUB AND SEMINAR 1 A

1993-94 CRM 5 GRADUATE  
PHYS 265 INTRO-MEDICAL PHYSICS AU S  
PHYS 410 RADIOBIOLOGY AU S  
PHYS 566 PHYSICS OF RADIOTHERAPY 3 A  
PHYS 568 MAGNETIC RESONANCE IMAG(MRI) 4 A  
PHYS 662 RAD LAB-DIAGNSTC RAD(PHYS) 4 A  
PHYS 663 RAD LAB-MUC MED PHYSICS 4 A  
PHYS 900 JOURNAL CLUB AND SEMINAR 1 A  
PHYS 990 RESEARCH 1 A

SUMMER 1994 CRM 5 GRADUATE  
PHYS 699 SESSION HD: JUN 13 - AUG 07  
PHYS 990 READING OR RESEARCH 1 A

1994-95 CRM 5 GRADUATE  
PHYS 473 IMAGING IN MEDICINE AU S  
PHYS 569 HEALTH PHYSICS 4 A  
PHYS 570 ADV BRACHYTHERAPY PHYSICS 2 A  
PHYS 571 ADV EXTRNL RADIATN ONC PHYS AU S  
PHYS 661 RAD LAB-RADIOTHERAPY PHYSIC 2 A  
PHYS 990 RESEARCH 1 A

1994-95 CRM 5 GRADUATE  
PHYS 328 HUMAN ANATOMY 3 B  
PHYS 475 DIAGNOS ULTRASOUND PHYSICS AU S  
PHYS 699 IND READING OR RESEARCH 3 A  
PHYS 707 DIGITAL IMAGING:DSA,CT,MRI AU S  
PHYS 990 RESEARCH 2 A

MASTER OF SCIENCE-MEDICAL PHYSICS  
DEGREE CONFERRED MAY 21, 1995

MAJOR: MEDICAL PHYSICS

SUMMER 1995 CRM 5 GRADUATE COURSES IN PROGRESS  
PHYS 990 RESEARCH 13 - AUG 13 2 UNRPTD  
END OF RECORD

• UW 1251-30 REV 7-90

**GRADING SYSTEM**

- All credits are based on semester hours. A 4.000 grading system was used. Intermediate grades of AB and BC were instituted as of September 1973.
- Used Prior to 1954-55 a 3.00 grading system was used. Intermediate grades of AB and BC were instituted as of September 1973.

**Grades With Associated Grade Points Per Credit**

GRADE	GRADE POINTS
A (Excellent)	4
AB (Intermediate Grade)	3.5
B (Good)	3
BC (Intermediate Grade)	2.5
C (Fair)	2
D (Poor)	1
F (Failure)	0
NR (No Report)	0

**Grades Which Do Not Have Associated Grade Points**

S (Satisfactory)	4
C (Unsatisfactory)	3
CR (Credit)	3.5
PT (No Credit)	3
IP (Incomplete)	2.5
IN (Incomplete in Creditable Course)	2
P (Progress)	1
EI (Extended Incomplete)	0
PI (Permanent Incomplete)	0
DEF (Deferred)	0
PE (Permanently Excluded)	0
EX (Excluded)	0
R (Registered)	0
DR (Dropped)	0
W (Withdrawn)	0

**ABBREVIATIONS AND SYMBOLS**

CRS Number of Credits  
GR Grade Received  
PTS Grade Points

Course Taken On a Pass/Fail Basis

Grades of Failure C - No Report Credits Inc. Non

Count Toward DEGTT

Credit Non-Credit Course in Program

Report Of A Failed Course

Course Does Not Count Toward Degree

Course Taken For Honor Credit

Failed Course That Has Been Repeated Twice

Grade Point Average

GPA Calculation

Number of Credits Included In Grade Point Average

Grade Point Average

GPA Calculation

Number of Credits Applicable To Current Degree

Program

Credits Applicable To Degree Programs But Not

Earned On UW Madison Campus

SEM Semester Totals

CUM Cumulative Totals

Question on Credits

**YEAR LEVEL DEFINITIONS**

- FRESHMAN	- less than 24 credits or 48 grade points
- SOPHOMORE	- 24 credits and 48 grade points
- JUNIOR	- 54 credits and 108 grade points
- SENIOR	- 86 credits and 172 grade points
- GRADUATE	- A student pursuing a graduate degree
- SPECIAL	- A student not pursuing a degree program
- GUEST	- A student authorized to audit courses only

**COURSE NUMBERING SYSTEM**

000 - 099 Special Purpose Courses  
100 - 299 Undergraduate Courses Not Open To Graduate Students  
300 - 699 Courses Open To Either Undergraduates Or Graduates  
700 - 999 Graduate And Post-Graduate Courses Including Seminars

A middle digit of 8 (ie. 181) indicates an honors course. Honors courses are also shown by an H immediately preceding their credit. A middle digit of 9 (ie. 999) indicates courses with its independent study, research, or thesis.

**INCOMPLETES**

The undergraduate student in letters (ie. S, etc.) must receive the grade of I (Incomplete) by the end of the fourth week of classes in the next semester (including summer). The student is in attendance more than incomplete by the end of the next semester they may in attendance & incomplete but then are not removed for the deadline dates. Upon rec'd a grade of F (Failure). The deadline for removal of incomplete may be extended with approval of the Associate Dean. All other undergraduate students and most graduate students must receive incomplete by the end of the next semester they may in attendance & incomplete but then are not removed for the deadline dates. Upon rec'd a grade of F (Failure). The deadline for removal of incomplete may be extended with approval of the Associate Dean. Graduate students are not subject to the above incomplete deadlines. Students who are not in attendance for a time near due date after an incomplete is received may not receive the incomplete written out permission from the Associate Dean. These incompletes remain on the record as permanent incompletes and do not affect future uses.

**LAW SCHOOL STUDENTS**

To be eligible to continue a student must maintain a weighted average of 77 or completion of two or more semesters of Law School residence work. A weighted average of 77 on 90 credits is required for graduation. Beginning September 1973 the Law School has the following lettered numerical grades to replace letter grades + or - or comparable with the following table:

87 - 100	A	77 - 86	C+
82 - 85	B	70 - 76	C-
0 - 59	F	0 - 59	F

For interpretation of Law School grades see "Setting Up Your Degree" Please see the UW-Madison Law School in the Right-Hand Column.

Please see the UW-Madison Law School in the Right-Hand Column.

Number of Credits Included In Grade Point Average

Grade Point Average

GPA Calculation

Number of Credits Applicable To Current Degree

Program

Credits Applicable To Degree Programs But Not

Earned On UW Madison Campus

SEM Semester Totals

CUM Cumulative Totals

Question on Credits

**MEDICAL SCHOOL TRADES**

Defined information concerning a student's grades relative standing and overall performance is available upon request to student from the UW-Madison Medical School Registrar. The grade of IP is available to medical students in Medical School Courses.

**THE HONORS PROGRAM**

The College of Letters and Science, The College of Arts and Life Sciences, The School of Business, and The Schools of Physical Resources and Arts, offer supplements to the requirements of the programs that replace or supplement the requirements of the various programs. These programs are designed to recognize work of greater depth, scope, originality, and ingenuity, and to provide opportunities and encouragement for students to exceed normative standards. The College of Arts and Life Sciences, The School of Business, and The Schools of Physical Resources and Arts, offer the Honors Program to students in the College of Letters and Science, the College of Arts and Life Sciences, and the School of Business.

The University of Wisconsin-Madison offers many opportunities for students to earn honors credit through their studies at the University of Wisconsin-Eau Claire. The University of Wisconsin-Green Bay, UW-Parkside, UW-Stevens Point, and UW-Oshkosh also offer Honors Programs. For questions regarding transfer of Honors credit, please contact the Office of the Registrar, Transcripts and Records, University of Wisconsin-Madison, 750 University Avenue, Room 53100.