

CURRICULUM VITAE

Name:

JOSHUA O. ATIBA, MD, MHA, FRCPC

Education:

- 1974 - 1979 MD, BS, Honours: College of Medicine, University of Lagos, Lagos, Nigeria.
- 1980 - 1983 Internal Medicine Residency: Lagos University Teaching Hospital, Lagos, Nigeria.
- 1983 - 1986 Clinical Pharmacology Fellowship: Stanford University, Stanford, California.
- 1986 - 1988 Medical Oncology Fellowship: University of British Columbia, Vancouver, BC, Canada.
- 1988 - 1990 Senior/Chief Medical Residency: University of British Columbia, Vancouver, BC, Canada.
- 1997 - 1999 Graduate Studies: Masters in Health Administration (MHA), St. Mary's College, Moraga, CA.

Clinical/Research Training:

- 7/1979 - 6/1980 Internship: Ahmadu Bello University Teaching Hospital. Kaduna, Nigeria.
- 7/1980 - 6/1983 Senior House Officer/Registrar: Our Lady of Apostles Hospital, Jos and Department of Medicine, Lagos University Teaching Hospital. Lagos, Nigeria.
- 7/1983 - 6/1986 Postdoctoral Fellow: Stanford University Medical Center, Department of Medicine, Division of Clinical Pharmacology. Stanford, California.
- 7/1986 - 6/1988 Medical Oncology Resident V, VI/Chief Resident: University of British Columbia and British Columbia Cancer Agency. Vancouver, British Columbia, Canada.
- 7/1988 - 12/1990 Internal Medicine Resident III, IV, V/Chief Resident: University of British Columbia and Vancouver General Hospital. Vancouver, British Columbia, Canada.

Faculty/Clinical Appointments:

- 1/1991-06/1999 Assistant Professor of Medicine: University of California, Irvine, CA.
- 1/1991-06/1999 Attending Physician/Internal Medicine and Medical Oncology: UCI Medical Center, Orange, CA.
- 3/1991-06/1999 Assistant Professor of Pharmacology: University of California, Irvine, CA.
- 3/1992-12/1995 Co-Director, Inpatient Oncology Unit: UCI Clinical Cancer Center, Orange, CA.
- 6/1992-12/1995 Director, Clinical Investigations and Chairman, Experimental Therapeutics Committee, UCI Clinical Cancer Center, Orange, CA.

6/1993-12/1995 Director, Clinical Investigations Shared Resource (CCSG Grant)

6/1993-6/1994 Chairman, Adult Hematology/Oncology Tumor Board, UCI Medical Center, Orange, CA.

1/1996-06/1999 Physician Diplomat, UCI/Chao Clinical Cancer Center, UCI Medical Center, Orange, CA.

1/1996-12/2001 Partner and Specialist (Internal Med. /Hem-Onc), Fairfield Medical Group, Fairfield, CA.

1/1997-3/1998 Medical Director, NorthBay Hospice (JCAHO accredited), Fairfield, CA.

8/1998-12/2001 Medical Director, NorthBay Cancer Center, Fairfield, CA.

1/1999-to date Medical Director, Newport Oncology And Healthcare (NOAH), Inc.

09/2004-02/2005 Pomeroy, Choate, and Atiba, Soquel, CA

02/2005-06/2006 Cancer and Blood Institute Medical Group at the Lucy Curci Cancer Center, Rancho Mirage, CA

University/Medical Center/Medical Group Appointments:

7/1991-6/1993 Member, Medical School Admissions Interview Panel, UCI, Irvine, CA.

7/1993-6/1995 Member, Medical School Admissions Committee, UCI, Irvine, CA.

7/1991-6/1992 Member, Medical Center Ad Hoc Committee on Inpatient Oncology Unit, UCIMC, Orange, CA.

3/1991-12/1995 Member, Human Subjects Review Committee (Institutional Review Board), UCIMC, Orange, CA.

1/1997-06/2000 Member, Pharmacy & Therapeutics Committee, NorthBay Medical Center, Fairfield, CA.

3/1997-12/2001 Member, Pharmacy & Therapeutics Committee, Western Health Advantage (WHA), (HMO formed by UC Davis, NorthBay, Woodland and Mercy Health Systems) Sacramento, CA.

1/1998-12/2001 Member, Quality Improvement/Utilization Management Committee, NorthBay Healthcare-Medical Group, Fairfield, CA.

4/1999-12/20021 Member, Institutional Review Board, NorthBay HealthCare Services, Fairfield, CA.

1/1999-to date Medical Director, Newport Oncology And Healthcare medical corporation (NOAH) Inc.

Consulting Appointments:

- 9/1991-12/1995 RA Minow, M.D. and MG Janis, M.D., Inc., (Professional Corporation) Los Alamitos, CA
- 1/1992-12/1995 Cost Care, Costa Mesa, CA (Utilization Review Organization)
- 3/1994-6/1995 FHP Health Care (Hematology/Oncology), Fountain Valley, CA.
- 1/1996-12/2001 MD Specialist, NorthBay Cancer Center, NorthBay Health Care Services, Fairfield, CA.
- 1/1996-to date Expert Reviewer (Internal Medicine & Hematology/Oncology), Medical Board of California, Sacramento, CA.
- 1/1996-to date Medical Consultant (Internal Medicine & Hematology/Oncology), California Department of Corporations, Los Angeles, CA.
- 10/1999-12/2003 Director-District I, CMRI-California Medical Review, Inc-Physician Peer Preview Organization, major Peer Review Contractor to HCFA, San Francisco, CA.

Community (Service) Appointments:

- 7/1993-12/1995 Member, American Cancer Society/Breast Cancer Advisory Panel on Screening/Prevention and Therapy, California.
- 1/1993-12/2002 Member, AMGEN Investigators & Speakers Bureau, CA.
- 1/1994-6/1995 Member, Smith-Kline and French Regional Medical Advisory Board (scientific/clinical), CA.
- 1/1995-08/2000 Eucharistic Minister, Saint Elizabeth Ann Seton Catholic Church, Irvine, CA
- 1/1998-to date Eucharistic Minister, Holy Spirit Catholic Church, Fairfield, CA
- 1/1997-12/2000 Member, Knights of Columbus, Council #7985. Irvine, CA.
- 12/2000-to date Member, Knights of Columbus, Council #3585, Suisun City, CA
- 7/1998-12/2002 Member, Zeneca Breast Cancer Prevention Advisory Board & Speakers Bureau, CA.
- 9/1998-12/2002 Member, Solano County Community Cancer Task Force (SC-CCTF), Vallejo, CA.
- 9/1998-12/2002 Chair, SC-CCTF-Medical Advisory Board, Vallejo, CA.
- 7/1998-to date Member, Quality/Utilization Advisory Committee/Peer Review, Partnership Healthplan of California, Suisun City, CA

Medical Journal Editorial Review Board Membership:

1/1992-12/1995 American Journal of Obstetrics and Gynecology.

1/1993-12/1995 Contemporary Oncology.

Medical Association Appointment:

1/1998-12/1999 CMA Medium Group Forum Delegate-CMA House of Delegates.

6/1998-7/1999 Secretary/Treasurer, Solano County Medical Society.

7/1998-12/2003 Member, CMA Council on Legislation (COL).

7/1999-06/2001 President-elect and President Solano County Medical Society.

7/1999-12/20003 Member, CMA Presidents' Forum.

Awards/Honours:

Distinctions in Pharmacology, Obstetrics and Gynecology, Biochemistry and Community Medicine, College of Medicine, University of Lagos, Nigeria, 1974-79.

Biode Prize for Best Student in Pharmacology, 1977.

Nicholson Prize for Best Student in Clinical Pathology, 1979.

NMA Prize for Best Student in Final MB, BS Examination, 1979.

British Commonwealth Scholarship, 1983.

Dean's Postdoctoral Fellowship Award, Stanford University, 1983-84.

Merck Company Foundation, International Fellowship Award in Clinical Pharmacology, 1984-86.

American Federation for Clinical Research (Western Section) and the Western Society for Clinical

Investigation - Postdoctoral Trainee Award for Best Abstract in Clinical Pharmacology, 1986.

Pharmaceutical Manufacturers' Association Award for Junior Faculty Development in Clinical Pharmacology, 1992-1995.

Certification:

Board Certified Internal Medicine (ABIM Certification September 1990).
Board Certified Clinical Pharmacology. (ABCP certification August, 1995).
Board Certified Medical Oncology. (ABIM certification November, 1995)
Board Certified Forensic Medicine (ABFM certification July, 1997)
Board Certified, Hospice and Palliative Medicine (ABHPM certification November, 1997)

Licentiate of Medical Council of Canada (LMCC), June 1990.
Fellow Royal College of Physicians of Canada (FRCPC), November 22, 1990.
Specialist Certificate in Internal Medicine, Royal College of Physicians of Canada, Oct. 20, 1990.

Standard ECFMG Certificate, July 1979.
Visa Qualifying Examination, September 1983, Certificate No. 311-782-7.
California FLEX (State Board Exam), June 1983, Fin: 520519018.
College of Physicians and Surgeons of British Columbia, Canada, Clinical Registration Certificate 1986-1990.

Societies:

American Society for Clinical Pharmacology and Therapeutics, 1986.
American College of Physicians, 1988.
American Federation for Clinical Research, 1985.
American Cancer Society, 1984.
Canadian Medical Association, 1986.
British Columbia Medical Association, 1986.
New York Academy of Sciences, 1983.
Nigerian Medical Association, 1979.
American Medical Association, 1992.
Solano County Medical Society, 1996.
California Medical Association, 1996.
American Society of Clinical Oncology, 1996.
American College of Forensic Examiners, 1996
American Academy of Hospice and Palliative Medicine, 1997.

Licenses:

California Medical License #A048957, December 1990.
DEA License #BA2684579, May 1991
NPI : 1689756546

Grants and Contracts:

Peer-reviewed:

1. Pharmaceutical Manufacturers' Association (PMA) Faculty Development Award in Clinical Pharmacology - \$120,000.
2. MRES award for studies in GSH (glutathione) metabolism in breast cancer patients - \$15,000.
3. CRCC grant for research into role of methylthioadenosine phosphorylase (MTAP) in determining responsiveness of malignant gliomas to purine inhibitors - \$35,000.

Pharmaceutical Company:

1. UCI 91-17: Phase II Trial of Doxorubicin and Ifosfamide with Mesna in the Treatment of Metastatic Breast Cancer. Sponsor: Bristol-Myers Squibb. (\$25,000)
2. UCI 93-02: Comparison of TLC D-99 Doxorubicin Liposome Injection and Doxorubicin Injection in Metastatic Breast Cancer/Phase II. Sponsor: Pfizer, Inc. (\$203,922)
3. UCI 92-07: Modulation of Cytotoxic Chemotherapeutic Agents and Potential Pharmacokinetics Interactions: Interferon 5-Fluorouracil Studies. Sponsor: Schering. (\$25,000)
4. UCI 92-04: A Multicenter Phase II Study of All trans-Retinoic Acid and Interferon α -2b in Drug Resistant Multiple Myeloma and Waldenstrom's Macroglobulinemia: Pharmacokinetics of tRA. Sponsor: NCI-CTEP. (\$20,000)
5. UCI 94-02: Phase II Trial of Letrozole (CGS-20267) and Megace in Postmenopausal Breast Cancer Patients. Sponsor: CIBA. (\$168,000)
6. UCI 94-06: Phase III Trial of Taxotere and Taxol in Metastatic Breast Cancer. Sponsor: Rhône-Poulenc Rorer. (\$80,000)
7. UCI 95-02: Comparison of TLC D-99 Doxorubicin Liposome injection and Doxorubicin injection in Metastatic Breast Cancer, Phase III Sponsor: Pfizer Inc. (\$230,000)

Other Contracts and Grants:

8. UCI 91-10: Trans-Retinoic Acid in the Treatment of Malignant Gliomas - A Phase II Study. Sponsor: NCI-CTEP.
9. SWOG 9157: Trial of All trans-Retinoic Acid in Hepatoma, Phase II. Sponsor: NCI-CTEP.
10. UCI 92-06: Single Dose Pharmacokinetics Studies of Bowman-Birk Inhibitor Concentrate (BBIC) Given as a Mouthwash and Swallowed in Subjects With Oral Leukoplakia. Sponsor: NCI-CTEP.
11. VAMC-LB 93-001: VP-16/Cisplatin With trans-Retinoic Acid in Patients with Metastatic Non-Small Cell Lung Cancer: A Phase II Trial: tRA Pharmacokinetics. Sponsor: NCI-CTEP.
12. UCI 95-10: Body Fluid Collection for screening for DR-70, a novel extracellular matrix protein pan tumor marker in newly diagnosed cancer patients. Sponsor: AMDL, CA.
13. UCI 91-8: AMGEN, Phase II Trial of Neupogen^R (r-metHUG-CSF) as an Adjunct to CNF Chemotherapy (Cyclophosphamide, Mitoxantrone, 5-Fluorouracil) on Advanced Breast Cancer. Sponsor: Amgen. (\$35,000)
14. UCI 92-02: A Double Blind, Parallel, Comparing the Efficacy and Safety of Granisetron (BRL 43694A) and Ondansetron (Zofran, Glaxo) in the Prophylaxis of Nausea and Emesis Induced by Cisplatin-based Chemotherapy. Sponsor: SmithKline Beecham. (\$27,206)
15. UCI 91-12: Phase II trial of PALA/5-FU and low dose leucovorin in advanced gastric and pancreatic cancer in a Phase II setting. Sponsor: U.S. Bioscience. (\$56,000)
16. UCI 91-16: Clinical trial of oral navelbine (vinorelbine) in patients with advanced breast cancer. Sponsor: Burroughs-Wellcome. (\$80,000)

PUBLICATIONS

Abstracts:

1. Blaschke TF, Horning SJ, Merigan TC, Gurley VF, Brown MI, and Atiba JO: Recombinant β ser-interferon inhibits antipyrine clearance in man. Clinical Research 33:19A, 1985. Presented at AFRC (Western Section) meeting Feb 6-8, 1985, Carmel, California.
2. Atiba JO and Blaschke TF: Etomidate inhibits antipyrine metabolism in mice. Clinical Research 34:17A,

1986.
Presented at AFRC (Western Section) meeting Feb 7-8, 1986, Carmel, California.
3. Atiba JO (MB), Taylor G (PhD), Blaschke TF (MD), Pershe RA (BS), and Brown M (RN): Plasma Antipyrine half-life determination from Urine data. Clin Pharm Ther 39:179, 1986.
Presented at 87th Annual meeting of ASCPT, March 20-22, 1986, Washington, DC.
 4. Atiba JO, White PF, and Blaschke TF: Antipyrine clearance is decreased after etomidate anesthesia in man. Clinical Research 36: 116A, 1988.
Presented at AFRC (Western Section) meeting Feb 16-19, 1988, Carmel, California.
 5. Atiba JO (MB), Blaschke TF (MD) and Wilkinson GR (PhD): Effect of ketoconazole on Polymorphic 4-hydroxylation of S-Mephenytoin and debrisoquine. Clin Pharm Ther 43:136, 1988.
Presented at 89th Annual Meeting of ASCPT, Mar 9-11, 1988, San Diego, California.
 6. Atiba J, Coppin C, Ragaz J, Worth A, Plenderleith I, Knowling M, Basco V: Clinical significance of lymphatic, vascular or neural invasion (LVN+) in node-negative breast cancer (NNBC). Proc Am Soc Clin Oncol 7:12; 44, 1988.
Presented at 24th annual meeting Am Soc Clinical Oncology May 22-25, 1988. New Orleans, Louisiana.
 7. Coppin C, Atiba J, Worth A, Spinelli J: Vessel invasion in node negative breast cancer (NNBC): A multivariate analysis. Proc Am Soc Clin Oncol 8:20; 73, 1989.
Presented at 25th Annual Meeting of the Am Soc of Clinical Oncology, May 21-23, 1989, San Francisco, California.
 8. Atiba J, Murray N, Coppin C, Brockington D. 10-year experience with cancer of unknown primary site (CUPS): Identifying long term survivors. Proc Am Soc Clin Oncol 8:292, 1138, 1989.
 9. Atiba, JO: Prognostic factors in node negative breast cancer (NNBC): Results from two British Columbia (BC) Cohorts.
Presented at UBC Residents Research Day, May 24, 1989, Vancouver, BC.
 10. LeRiche J, Ragaz J, Atiba J, DeJong G: Role of fine needle aspiration (FNA) in risk assessment of breast cancer. Data from the British Columbia FNA flow cytometry pilot project. Proc Am Soc Clin Oncol. 9:44; 168, 1990.
 11. Atiba JO: Models for studying drug interaction in man.
Presented at UBC Residents Research Day. May 30, 1990, Vancouver, BC.
 12. Nagourney RA, Eckerling G, Atiba JO, Iyer P: PALA plus 5-fluorouracil (5-FU) and low dose leucovorin (LD LV) in advanced gastric and pancreatic cancer: A Phase II trial. Proc Am Soc Clin Oncol 11:192,582, 1992.
 13. Budd GT, Silver RT, Atiba JO, Presant C et al: Neupogen⁷ (recombinant Met-Human-G-CSF) as an adjunct to CNF chemotherapy (cyclophosphamide, mitoxantrone, 5-fluorouracil) in advanced breast cancer. Breast Cancer Research and Treatment 23: 164, 134, 1992.
 14. Nagourney RA, Atiba J, Ciarolla A, Blitzer J, Iyer P: PALA plus 5-fluorouracil (5-FU)/Leucovorin (LU) in advanced gastric (G) and pancreatic (P) cancer. Proc ASCO 12:217, 660, 1993.

15. Atiba J, Jamil S, Meyskens FL Jr, Cho J, Armentrout S, Berkson P, Wong S-F, Neal J: Transretinoic Acid (tRA) in the treatment of malignant gliomas (MG). Proc ASCO 13:178, 501, 1994.
16. Nagourney RA, Baqai R, Atiba J, Iyer P, Ciarolla A, Blitzer J: PALA plus 5-Fluorouracil (FU)/leucovorin (LV) in advanced gastric (G) and pancreatic (P) cancer. Proc ASCO 13:212, 636, 1994.
17. Atiba JO, Manzardo AM, Thiruvengadam R, Schell M: Effect of drug holiday on all-trans retinoic acid pharmacokinetics. Clin Pharm Ther, 57; 152, #71, 1995. Presented at 96th Annual Meeting of ASCPT, March 15-17, 1995, San Diego, CA.
18. Atiba JO, Manzardo AM, Schell M, Thiruvengadam R, Prestifilippo J and Lutzky J: Restoration of oral all-trans-retinoic acid (tRA) bioavailability: Combination therapy with alpha interferon (IFN) versus a drug holiday. Proc ASCO, 14:460, #1483, 1995. Presented May 21, 1995, at the 31st ASCO Annual Meeting, Los Angeles, CA.
19. Thiruvengadam R, Atiba J, Azami S: Trans-Retinoic Acid (tRA) with chemotherapy in non-small cell lung cancer (NSCLC): a pilot phase II study. Proc ASCO, 14:376, #1164, 1995.
20. Fruehauf JP, Atiba J, Eck L: Prognostic Markers as Predictor of drug response: *In vitro* correlations. Breast Rees Treat 27:138, 1993.
21. Atiba J, Meyskens Fl Jr., Schell MJ, Armentrout SA, Cho J, Wong SF, Thiruvengadam R, Manzardo A. All-transretinoic acid: preliminary evidence for efficacy in recurrent high grade malignant gliomas and effect of drug holiday versus alpha interferon therapy on restoration of tRA bioavailability. Annal Oncol. 7:613, 1996.
22. Atiba JO, Meyskens FL, Schell MJ, Armentrout SA, Cho J, Wong SF, Neal J, Ramsinghani N. All-trans Retinoic acid (atRA): a new and effective salvage agent for recurrent high-grade malignant glioma (RHGMG). Proc ASCO 15, 2005, 1996.

Articles:

Peer-Reviewed:

1. Atiba JO, Taylor G, Pershe RA, and Blaschke TF: Plasma Antipyrine half-life can be determined from Urine data. Br J Clin Pharmac: 23, 715-719, 1987.
2. Atiba JO and Blaschke TF: Etomidate Inhibits Antipyrine Metabolism in Mice. Am J Med Sc: 293 (6): 361-365, 1987.
3. Tunwashe OL, Odukoya OO, and Atiba JO: Acute Poisoning in the Emergency Room: Lagos University Teaching Hospital. Tropical Doct (Roy Soc Med) 15: 164-166, 1985.
4. Mendoza FS, Atiba JO, Kirensky AK, and Scannell LM: Rhabdomyolysis and Acute Renal Failure associated with Doxylamine Overdose. Clin Pediatrics 26 (11): 595-597, 1987.

5. Atiba JO, Horai Y, White PF, Trevor AJ, Blaschke TF, and Sung M-L. Effect of Etomidate on Hepatic Drug Metabolism in Humans. Anesthesiology 68:920-924, 1988.
6. Atiba JO, Blaschke TF and Wilkinson G: Effects of Ketoconazole on the polymorphic 4-hydroxylations of S-Mephenytoin and Debrisoquin. Brit J Clin Pharmac 28, 161-165, 1989.
7. Atiba JO, Meyskens FL Jr: Editorial review: Tamoxifen prophylaxis in breast cancer by RR Love. Oncology 7:38-40, 1992.
8. Atiba JO, Green SJ, Hynes HE, Osborne CK, Miller TP, Davidner M: Phase II evaluation of mitoxantrone plus cis-platinum in patients with advanced breast cancer: a Southwest Oncology Group study. Investigational New Drugs 12:129-132, 1994.
9. Manzone H, Billings PC, Cummings WN, Feldman R, Clark LC, Odell CS, Horan AM, Atiba JO, Meyskens FL, Kennedy AR: Levels of proteolytic activities as intermediate marker endpoints in oral carcinogenesis. Cancer Epidemiology Biomarkers & Prevention 4:521-527, 1995.
10. Thiruvengadam R, Atiba JO, Azawi SH: A phase II trial of a differentiating agent (tRA) with Cisplatin-VP-16chemotherapy in advanced non-small cell lung cancer. Investigational New Drugs, 14:395-401, 1996.
11. Atiba JO, Manzardo AM, Thiruvengadam R, Schell MJ: Restoration of oral all-trans-retinoic acid bioavailability after a brief drug holiday. American J. Therap., 4, 134-140, 1997
12. Budd GT, Atiba J, Silver RT, *et al*: Phase I/II trial of human recombinant granulocyte-colony-stimulating factor (filgastrim) and escalating doses of Cyclophosphamide, Mitoxantrone and 5-FU in the Treatment of Advanced Breast Cancer, J Cancer Res Clin Oncol (1999) 125: 500-504.

Other:

1. Atiba JO, Meyskens FL Jr: Chemoprevention of breast cancer. Seminars in Oncology 19:3:220-229, 1992.
2. Atiba JO. Too many physicians doing too much? Can Med Assoc J 1992; 147(3) (letter to the editor).
3. Atiba JO, Meyskens FL Jr.: Correction-Malignant Glioma J Clin Oncol 15:1286, 1997. (Letter to the Editor)

Book Chapter:

1. Le Riche J, Atiba J, Ragaz J, DeJong G: The Role of Fine Needle Aspiration in Determining the Risk of Breast Cancer. In: Ragaz J, Ariel I, eds. High Risk Breast Cancer - Diagnosis Berlin: Springer-Verlag: 120-138, 1989.

Research Interests:

The thrust of my research is to understand the pharmacokinetics of antineoplastic and chemoprevention drugs. Pharmacokinetics refers to the mechanisms whereby the human body acts on an administered drug. This effect is reflected in pharmacokinetics parameters such as the half-life of drug elimination, the volume of distribution, area-under-the-concentration/time curve (AUC) and the elimination rate constant. My goal through the study of these parameters, their alteration during drug administration, and their modulation, is to optimise drug administration, enhance the efficacy of these drugs and minimize their toxicity.

A. Cancer Pharmacology

1. Clinical pharmacology of antineoplastic drugs. Phase I and II studies of new antineoplastic and antiemetic drugs. Pharmacokinetically guided dose-escalation in Phase I studies.
2. Tumour cell drug resistance and mechanism for overcoming drug resistance in human and animal tumour models.
3. Pharmacokinetic and pharmacodynamic aspects of drug-drug and drug-disease interactions in man.
4. Drug toxicity studies. Therapeutic manoeuvres for modulating drug toxicity.

B. Drug Metabolism/Chemical Carcinogenesis/Preventive Oncology

1. Drug metabolism studies in animals and humans.
2. Model drugs such as antipyrine as probes for staying mechanism of drug interaction of 5-Fluorouracil-levamisole and 5FU-Interferon.
3. Metabolic studies (using model drugs as probes) in familial aggregation of malignancy (egg. lung cancer, breast cancer) to detect genetic/molecular markers predicting for high risk of occurrence of cancer in family members. Targeting of preventive therapy (beta-carotene, cis-retinoic acid) to those high-risk subjects.
4. Studies of peripheral lymphocyte glutathione levels using a flow-cytometry based technique as an adjunct to GSH-modulated drug resistance studies in the clinical setting.
5. Phase I/Pharmacokinetics study of Bowman-Birk Inhibitor (BBI) novel protease inhibitor for oral leukoplakia.

C. Therapeutic Oncology

1. Clinical studies of colony stimulating factors (CSF's) in breast cancer chemotherapy.
2. Phase I/II/III trial of a new class of antiemetics, antagonist of 5-hydroxytryptamine receptor (5HT-3 or M

receptors) such as Ondansetron and Granisetron.

3. Clinical trial of novel vinca alkaloids in advanced breast cancer.
4. Phase I/II trial of new non-steroidal antiestrogens and aromatase inhibitors in postmenopausal breast cancer patients.
5. Clinical trial of modulated 5-FU in advanced GIT cancer.
6. Phase III trial of doxorubicin, cytoxan, methotrexate and 5-FU (ACMF) in locally advanced breast cancer.
7. Phase II study of taxol, doxorubicin, and cyclophosphamide in locally advanced breast cancer in neoadjuvant and adjuvant setting.
8. Phase II study of taxol, doxorubicin, and cyclophosphamide in metastatic breast cancer.
9. Phase II trial of liposomal doxorubicin in metastatic breast cancer.

D. Hospice

1. Hospice and palliative care
2. Cultural differences in the death and dying process
3. Cultural differences in perception of pain and its treatment needs
4. Cultural concepts of death, dying, grieving and meaning of death
5. Pharmacology of analgesic drugs, Opioids and Adjuncts for Symptom control in the hospice patient

E. Health Care Financing/Health Care Management

1. Healthcare Outcome measures and their validity.
2. Healthcare Outcomes management and development.
3. Alternative pathways to Health Care financing.
4. Training of healthcare providers about cultural aspects to Healthcare Consumption.
5. Healthcare Reform, opportunities to learn from other health delivery systems such as the Canadian, British National Health service and Nigerian experience.

F. Healthcare/Biomedical Ethics

1. Ethical Challenges in new biomedical arenas.
2. Ethical challenges in the midst of healthcare reform and financial changes.
3. Empathic Accuracy in Healthcare and Bioethics.

Rev 05/2015