




Lucy Tompkins

Lucy Becker Professor in Medicine and of Microbiology and Immunology
Medicine - Infectious Diseases

 NIH Biosketch available Online

 Curriculum Vitae available Online

CLINICAL OFFICES

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Bio

CLINICAL FOCUS

- Infectious Diseases
- Internal Medicine
- hospital epidemiology

ACADEMIC APPOINTMENTS

- Professor, Medicine - Infectious Diseases
- Professor, Microbiology & Immunology

ADMINISTRATIVE APPOINTMENTS

- Medical Director, Clinical Microbiology Laboratory, Stanford Hospital and Clinics, (1983-1998)
- Chief, Division of Infectious Diseases and Geographic Medicine, Department of Medicine, (2001-2008)
- Associate Dean for Academic Affairs, School of Medicine, (2001-2013)
- Co-Director, Infectious Diseases Fellowship Training Program, Division of Infectious Diseases and Geographic Medicine, (2014- present)
- Hospital Epidemiologist , Med Director, Infection Prevention and Control Department, Stanford Hospital and Clinics, (1989- present)

HONORS AND AWARDS

- Elected Fellow, Infectious Dis Soc of America (1987)
- Elected Member, Western Assoc. Physicians (1990)
- Member, Board of Directors, Infectious Diseases Society of America (1994-1997)
- Elected Member, Am. Assoc Physicians (1995)
- Elected Fellow, Am. Academy Microbiology (1997)
- Elected Secretary/Treasurer, Infectious Diseases Society of America (1997-2003)
- Elected Fellow, Society for Healthcare Epidemiology of America (1998)
- Associate Editor, Clinical Infectious Diseases (1999-present)

- Elected Fellow, American Association for the Advancement of Science (AAAS) (2001)
- Stanford University Fellow, Stanford University (2005-2007)
- Walter E Stamm Mentor Award, Infectious Diseases Society of America (2013)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Member, NIAID/NIH BM-1 Study Section, NIAID/NIH (1989 - 1992)
- Member, Board of Scientific Counselors, Clinical Center, NIH, NIH (1998 - 2002)
- Member, Advisory Committee on Immunization Practices, HHS/Centers for Disease Control (1999 - 2003)

PROFESSIONAL EDUCATION

- Medical Education: Dartmouth Geisel School of Medicine Office of the Registrar (1973) NH
- Fellowship: University of Washington School of Medicine (1979) WA
- Board Certification: Internal Medicine, American Board of Internal Medicine (1976)
- Residency: University of Washington School of Medicine (1976) WA
- Residency: Dartmouth Hitchcock Medical Center (1975) NH
- Internship: Dartmouth Hitchcock Medical Center (1974) NH
- MD, Dartmouth Medical School , Medicine (1973)
- PhD, Georgetown U School of Medicine , Microbiology (1971)

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Since 2010 I have re-focused my research interests in clinical research studies in the general field of healthcare associated infections. One current research project includes a prospective clinical research study of the epidemiology of *Clostridium difficile* in immunocompromised patients using whole genome sequencing, spatial mapping, and clinical risk factor assessment.

Teaching

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Microbiology and Immunology (Phd Program)

Publications

PUBLICATIONS

- **Asymptomatic SARS-CoV-2 Transmission from Community Contacts in Healthcare Workers.** *Annals of surgery*
Graham, L. A., Maldonado, Y. A., Tompkins, L. S., Wald, S. H., Chawla, A., Hawn, M. T.
2020
- **Could the prevention of health care-associated infections increase hospital cost? The financial impact of health care-associated infections from a hospital management perspective.** *American journal of infection control*
Shepard, J., Frederick, J., Wong, F., Madison, S., Tompkins, L., Hadhazy, E.
2020; 48 (3): 255–60
- **N95 Respirator Alternatives And Conservation Strategies.** *Anesthesia and analgesia*
Wong, B. J., Lu, A. C., Tarlow, B. D., Tompkins, L. S., Chawla, A., Pearl, R. G., Wald, S. H.
2020
- **Dual reporting of *Clostridioides difficile* PCR and predicted toxin result based on PCR cycle threshold reduces treatment of toxin-negative patients without increases in adverse outcomes.** *Journal of clinical microbiology*

- Hitchcock, M. M., Holubar, M., Hogan, C. A., Tompkins, L. S., Banaei, N.
2019
- **Infection Rates.** *Journal of clinical microbiology*
Truong, C. Y., Gombar, S., Wilson, R., Sundararajan, G., Tekic, N., Holubar, M., Shepard, J., Madison, A., Tompkins, L., Shah, N., Deresinski, S., Schroeder, L. F., Banaei, et al
2017
 - **Helicobacter pylori Usurps Cell Polarity to Turn the Cell Surface into a Replicative Niche** *PLOS PATHOGENS*
Tan, S., Tompkins, L. S., Amieva, M. R.
2009; 5 (5)
 - **Microarray detection of human parainfluenzavirus 4 infection associated with respiratory failure in an immunocompetent adult** *CLINICAL INFECTIOUS DISEASES*
Chiu, C. Y., Rouskin, S., Koshy, A., Urisman, A., Fischer, K., Yagi, S., Schnurr, D., Eckburg, P. B., Tompkins, L. S., Blackburn, B. G., Merker, J. D., Patterson, B. K., Ganem, et al
2006; 43 (8): E71-E76
 - **Investigation of mediastinitis due to coagulase-negative staphylococci after cardiothoracic surgery** *INFECTION CONTROL AND HOSPITAL EPIDEMIOLOGY*
Van Kerkhove, M. D., Parsonnet, J., Weingart, M., Tompkins, L. S.
2006; 27 (3): 305-307
 - **Prolonged incubation and extensive subculturing do not increase recovery of clinically significant microorganisms from standard automated blood cultures** *CLINICAL INFECTIOUS DISEASES*
Baron, E. J., Scott, J. D., Tompkins, L. S.
2005; 41 (11): 1677-1680
 - **Helicobacter pylori CagA induces a transition from polarized to invasive phenotypes in MDCK cells** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Bagnoli, F., Buti, L., Tompkins, L., Covacci, A., Amieva, M. R.
2005; 102 (45): 16339-16344
 - **Growth phase-dependent response of Helicobacter pylori to iron starvation** *INFECTION AND IMMUNITY*
Merrell, D. S., Thompson, L. J., Kim, C. C., Mitchell, H., Tompkins, L. S., Lee, A., FALKOW, S.
2003; 71 (11): 6510-6525
 - **pH-regulated gene expression of the gastric pathogen Helicobacter pylori** *INFECTION AND IMMUNITY*
Merrell, D. S., Goodrich, M. L., Otto, G., Tompkins, L. S., FALKOW, S.
2003; 71 (6): 3529-3539
 - **Disruption of the epithelial apical-junctional complex by Helicobacter pylori CagA** *SCIENCE*
Amieva, M. R., Vogelmann, R., Covacci, A., Tompkins, L. S., NELSON, W. J., FALKOW, S.
2003; 300 (5624): 1430-1434
 - **Use of an open-reading frame-specific Campylobacter jejuni DNA microarray as a new genotyping tool for studying epidemiologically related isolates** *JOURNAL OF INFECTIOUS DISEASES*
Leonard, E. E., Takata, T., Blaser, M. J., FALKOW, S., Tompkins, L. S., Gaynor, E. C.
2003; 187 (4): 691-694
 - **Cag pathogenicity island-specific responses of gastric epithelial cells to Helicobacter pylori infection** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Guillemin, K., Salama, N. R., Tompkins, L. S., FALKOW, S.
2002; 99 (23): 15136-15141
 - **Helicobacter pylori enter and survive within multivesicular vacuoles of epithelial cells** *CELLULAR MICROBIOLOGY*
Amieva, M. R., Salama, N. R., Tompkins, L. S., FALKOW, S.
2002; 4 (10): 677-690
 - **Selection of signature-tagged Legionella pneumophila mutants in Acanthamoeba castellanii** *5th International Conference on Legionella*
Tompkins, L. S., Polesky, A., Ross, J., FALKOW, S.

AMER SOC MICROBIOLOGY.2002: 152-160

- **Role of clinical microbiology laboratories in the management and control of infectious diseases and the delivery of health care** *CLINICAL INFECTIOUS DISEASES*
Peterson, L. R., Hamilton, J. D., Baron, E. J., Tompkins, L. S., MILLER, J. M., WILFERT, C. M., Tenover, F. C., Thomson, R. B.
2001; 32 (4): 605-610
- **Identification of Legionella pneumophila genes important for infection of amoebas by signature-tagged mutagenesis** *INFECTION AND IMMUNITY*
Polesky, A. H., Ross, J. T., FALKOW, S., Tompkins, L. S.
2001; 69 (2): 977-987
- **Vacuolating cytotoxin of Helicobacter pylori plays a role during colonization in a mouse model of infection** *INFECTION AND IMMUNITY*
Salama, N. R., Otto, G., Tompkins, L., FALKOW, S.
2001; 69 (2): 730-736
- **Fecal leukocyte stain has diagnostic value for outpatients but not inpatients** *JOURNAL OF CLINICAL MICROBIOLOGY*
Savola, K. L., Baron, E. J., Tompkins, L. S., Passaro, D. J.
2001; 39 (1): 266-269
- **A whole-genome microarray reveals genetic diversity among Helicobacter pylori strains** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Salama, N., Guillemin, K., McDaniel, T. K., Sherlock, G., Tompkins, L., FALKOW, S.
2000; 97 (26): 14668-14673
- **Collaborative multidisciplinary workshop report: detection, culture, serology, and antimicrobial susceptibility testing of Chlamydia pneumoniae (vol 181, pg S460, 2000)** *JOURNAL OF INFECTIOUS DISEASES*
Tompkins, L. S., Schachter, J., Boman, J., Chernesky, M. A.
2000; 182 (5): 1581
- **Collaborative multidisciplinary workshop report: Detection, culture, serology, and antimicrobial susceptibility testing of Chlamydia pneumoniae** *JOURNAL OF INFECTIOUS DISEASES*
Tompkins, L. S., SCHACHTER, J., Boman, J., Dowell, S., Gaydos, C. A., Levison, M. E., MAASS, M., Madico, G., Orfila, J., Ouchi, K., Peeling, R. W., Taylor-Robinson, D., STAMM, et al
2000; 181: S460-S461
- **Altered states: Involvement of phosphorylated CagA in the induction of host cellular growth changes by Helicobacter pylori** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Segal, E. D., Cha, J., Lo, J., FALKOW, S., Tompkins, L. S.
1999; 96 (25): 14559-14564
- **The application of molecular biology to medical bacteriology - Yesterday, today, and tomorrow** *ASM NEWS*
FALKOW, S., Tompkins, L. S.
1999; 65 (5): 317-321
- **The host cell response to Helicobacter pylori attachment** *Symposium on Helicobacter Pylori - Basic Mechanisms to Clinical Cure*
Tompkins, L. S., Segal, E., FALKOW, S.
SPRINGER.1998: 77-83
- **Induction of host signal transduction pathways by Helicobacter pylori** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Segal, E. D., Lange, C., Covacci, A., Tompkins, L. S., FALKOW, S.
1997; 94 (14): 7595-7599
- **Helicobacter pylori attachment to gastric cells induces cytoskeletal rearrangements and tyrosine phosphorylation of host cell proteins** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Segal, E. D., FALKOW, S., Tompkins, L. S.
1996; 93 (3): 1259-1264
- **Bartonella species infections, including cat-scratch disease, trench fever, and bacillary angiomatosis - What molecular techniques have revealed** *WESTERN JOURNAL OF MEDICINE*
Tompkins, L. S.

1996; 164 (1): 39-41

- **BARTONELLA-HENSELAE AND Bartonella-Quintana Adherence to and Entry into Cultured Human Epithelial-Cells** *INFECTION AND IMMUNITY*
Batterman, H. J., Peek, J. A., Loutit, J. S., FALKOW, S., Tompkins, L. S.
1995; 63 (11): 4553-4556
- **CONSTRUCTION AND CHARACTERIZATION OF AN ISOGENIC UREASE-NEGATIVE MUTANT OF Helicobacter-Mustelae** *INFECTION AND IMMUNITY*
SOLNICK, J. V., JOSENHANS, C., SUERBAUM, S., TOMPKINS, L. S., LABIGNE, A.
1995; 63 (9): 3718-21
- **THE NEW PATH TO PREVENTING ULCERS** *SCIENCE*
Tompkins, L. S., FALKOW, S.
1995; 267 (5204): 1621-1622
- **NEW TECHNOLOGY IN THE CLINICAL MICROBIOLOGY LABORATORY - WHAT YOU ALWAYS WANTED TO KNOW BUT WERE AFRAID TO ASK** *JOURNAL OF INFECTIOUS DISEASES*
Tompkins, L. S., Tenover, F., Arvin, A.
1994; 170 (5): 1068-1074
- **GROWTH OF Legionella-pneumophila in Acanthamoeba-castellanii Enhances Invasion** *INFECTION AND IMMUNITY*
Cirillo, J. D., FALKOW, S., Tompkins, L. S.
1994; 62 (8): 3254-3261
- **EFFECTS OF AN ISOGENIC ZN-METALLOPROTEASE-DEFICIENT MUTANT OF Legionella-pneumophila in a Guinea-pig Pneumonia Model** *MOLECULAR MICROBIOLOGY*
Moffat, J. F., Edelstein, P. H., Regula, D. P., Cirillo, J. D., Tompkins, L. S.
1994; 12 (5): 693-705
- **MOLECULAR ANALYSIS OF UREASE GENES FROM A NEWLY IDENTIFIED UNCULTURED SPECIES OF Helicobacter** *INFECTION AND IMMUNITY*
Solnick, J. V., Orourke, J., Lee, A., Tompkins, L. S.
1994; 62 (5): 1631-1638
- **FURTHER MOLECULAR CHARACTERIZATION OF THE CLONED Legionella-pneumophila Zinc Metalloprotease** *INFECTION AND IMMUNITY*
Moffat, J. F., BLACK, W. J., Tompkins, L. S.
1994; 62 (2): 751-753
- **IDENTIFICATION AND CHARACTERIZATION OF A Helicobacter-pylori Hemolysin** *1st Bristol-Myers Squibb Symposium on Infectious Disease Research: The Cell and Molecular Biology of Bacterial-Host Cell Interactions*
Segal, E. D., Tompkins, L. S.
LIPPINCOTT-RAVEN PUBL.1993: 178-82
- **AN UNCULTURED GASTRIC SPIRAL ORGANISM IS A NEWLY IDENTIFIED Helicobacter in Humans** *JOURNAL OF INFECTIOUS DISEASES*
Solnick, J. V., Orourke, J., Lee, A., Paster, B. J., Dewhirst, F. E., Tompkins, L. S.
1993; 168 (2): 379-385
- **MOLECULAR STRAIN TYPING OF MYCOBACTERIUM-TUBERCULOSIS TO CONFIRM CROSS-CONTAMINATION IN THE MYCOBACTERIOLOGY LABORATORY AND MODIFICATION OF PROCEDURES TO MINIMIZE OCCURRENCE OF FALSE-POSITIVE CULTURES** *JOURNAL OF CLINICAL MICROBIOLOGY*
Small, P. M., McClenny, N. B., Singh, S. P., SCHOOLNIK, G. K., Tompkins, L. S., Mickelsen, P. A.
1993; 31 (7): 1677-1682
- **ROLE OF FLAGELLA IN ADHERENCE, INTERNALIZATION, AND TRANSLOCATION OF Campylobacter-jejuni in Nonpolarized and Polarized Epithelial-Cell Cultures** *INFECTION AND IMMUNITY*
Grant, C. C., Konkel, M. E., Cieplak, W., Tompkins, L. S.
1993; 61 (5): 1764-1771

- **NOSOCOMIAL LEGIONELLOSIS - A REVIEW OF PULMONARY AND EXTRAPULMONARY SYNDROMES** *AMERICAN JOURNAL OF INFECTION CONTROL*
Lowry, P. W., Tompkins, L. S.
1993; 21 (1): 21-27
- **TRANSFORMATION OF HELICOBACTER-PYLORI BY ELECTROPORATION** *BIOTECHNIQUES*
Segal, E. D., Tompkins, L. S.
1993; 14 (2): 225-226
- **EVALUATION OF A DNA AMPLIFICATION PROCEDURE FOR DETECTION OF LEGIONELLA-PNEUMOPHILA AND LEGIONELLA-DUMOFFII IN WATER** *4TH INTERNATIONAL SYMP ON LEGIONELLA*
Loutit, J. S., Tompkins, L. S.
AMER SOC MICROBIOLOGY.1993: 176-178
- **DETECTION OF LEGIONELLA BY MOLECULAR METHODS** *4TH INTERNATIONAL SYMP ON LEGIONELLA*
Tompkins, L. S., Loutit, J. S.
AMER SOC MICROBIOLOGY.1993: 163-168
- **HELICOBACTER-PYLORI AND GASTRODUODENAL DISEASE - PATHOGENESIS AND HOST-PARASITE INTERACTION** *INFECTIOUS AGENTS AND DISEASE-REVIEWS ISSUES AND COMMENTARY*
Solnick, J. V., Tompkins, L. S.
1992; 1 (6): 294-309
- **The use of molecular methods in infectious diseases.** *New England journal of medicine*
Tompkins, L. S.
1992; 327 (18): 1290-1297
- **CURRENT CONCEPTS - THE USE OF MOLECULAR METHODS IN INFECTIOUS-DISEASES** *NEW ENGLAND JOURNAL OF MEDICINE*
Tompkins, L. S.
1992; 327 (18): 1290-1297
- **CHARACTERIZATION OF HELICOBACTER-PYLORI UREASE MUTANTS** *INFECTION AND IMMUNITY*
Segal, E. D., Shon, J., Tompkins, L. S.
1992; 60 (5): 1883-1889
- **A QUANTITATIVE MODEL OF INTRACELLULAR GROWTH OF LEGIONELLA-PNEUMOPHILA IN ACANTHAMOEBA-CASTELLANII** *INFECTION AND IMMUNITY*
Moffat, J. F., Tompkins, L. S.
1992; 60 (1): 296-301
- **RESTRICTION ENZYME AND SOUTHERN HYBRIDIZATION ANALYSES OF PSEUDOMONAS-AERUGINOSA STRAINS FROM PATIENTS WITH CYSTIC-FIBROSIS** *JOURNAL OF CLINICAL MICROBIOLOGY*
Loutit, J. S., Tompkins, L. S.
1991; 29 (12): 2897-2900
- **A CLUSTER OF LEGIONELLA-STERNAL WOUND INFECTIONS DUE TO POSTOPERATIVE TOPICAL EXPOSURE TO CONTAMINATED TAP WATER** *NEW ENGLAND JOURNAL OF MEDICINE*
Lowry, P. W., BLANKENSHIP, R. J., GRIDLEY, W., TROUP, N. J., Tompkins, L. S.
1991; 324 (2): 109-113
- **THE AGENT OF BACILLARY ANGIOMATOSIS - AN APPROACH TO THE IDENTIFICATION OF UNCULTURED PATHOGENS** *NEW ENGLAND JOURNAL OF MEDICINE*
Relman, D. A., Loutit, J. S., Schmidt, T. M., FALKOW, S., Tompkins, L. S.
1990; 323 (23): 1573-1580
- **VISCERAL BACILLARY EPITHELIOID ANGIOMATOSIS - POSSIBLE MANIFESTATIONS OF DISSEMINATED CAT SCRATCH DISEASE IN THE IMMUNOCOMPROMISED HOST - A REPORT OF 2 CASES** *AMERICAN JOURNAL OF MEDICINE*
Kemper, C. A., Lombard, C. M., Deresinski, S. C., Tompkins, L. S.
1990; 89 (2): 216-222

- **LEGIONELLA-PNEUMOPHILA ZINC METALLOPROTEASE IS STRUCTURALLY AND FUNCTIONALLY HOMOLOGOUS TO PSEUDOMONAS-AERUGINOSA ELASTASE** *JOURNAL OF BACTERIOLOGY*
BLACK, W. J., Quinn, F. D., Tompkins, L. S.
1990; 172 (5): 2608-2613
- **TRANSFORMATION OF ACTINOBACILLUS-PLEUROPNEUMONIAE AND ANALYSIS OF R FACTORS BY ELECTROPORATION** *AMERICAN JOURNAL OF VETERINARY RESEARCH*
Lalonde, G., Miller, J. F., Tompkins, L. S., OHANLEY, P.
1989; 50 (11): 1957-1960
- **GENETIC, IMMUNOLOGICAL, AND CYTO-TOXIC COMPARISONS OF LEGIONELLA PROTEOLYTIC ACTIVITIES** *INFECTION AND IMMUNITY*
Quinn, F. D., KEEN, M. G., Tompkins, L. S.
1989; 57 (9): 2719-2725
- **ANALYSIS OF A CLONED SEQUENCE OF LEGIONELLA-PNEUMOPHILA ENCODING A 38 KD METALLOPROTEASE POSSESSING HEMOLYTIC AND CYTO-TOXIC ACTIVITIES** *MOLECULAR MICROBIOLOGY*
Quinn, F. D., Tompkins, L. S.
1989; 3 (6): 797-805
- **SPECIES-SPECIFIC DETECTION OF LEGIONELLA-PNEUMOPHILA IN WATER BY DNA AMPLIFICATION AND HYBRIDIZATION** *JOURNAL OF CLINICAL MICROBIOLOGY*
Starnbach, M. N., FALKOW, S., Tompkins, L. S.
1989; 27 (6): 1257-1261
- **LEGIONELLA PROSTHETIC-VALVE ENDOCARDITIS** *NEW ENGLAND JOURNAL OF MEDICINE*
Tompkins, L. S., Roessler, B. J., Redd, S. C., Markowitz, L. E., Cohen, M. L.
1988; 318 (9): 530-535
- **HIGH-VOLTAGE ELECTROPORATION OF BACTERIA - GENETIC-TRANSFORMATION OF CAMPYLOBACTER-JEJUNI WITH PLASMID DNA** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Miller, J. F., Dower, W. J., Tompkins, L. S.
1988; 85 (3): 856-860
- **GENE-TRANSFER FROM ESCHERICHIA-COLI TO CAMPYLOBACTER SPECIES - DEVELOPMENT OF SHUTTLE VECTORS FOR GENETIC-ANALYSIS OF CAMPYLOBACTER-JEJUNI** *JOURNAL OF BACTERIOLOGY*
LABIGNEROUSSSEL, A., Harel, J., Tompkins, L.
1987; 169 (11): 5320-5323
- **MOLECULAR EPIDEMIOLOGY OF LEGIONELLA SPECIES BY RESTRICTION ENDONUCLEASE AND ALLOENZYME ANALYSIS** *JOURNAL OF CLINICAL MICROBIOLOGY*
Tompkins, L. S., TROUP, N. J., Woods, T., Bibb, W., MCKINNEY, R. M.
1987; 25 (10): 1875-1880
- **CLONED, RANDOM CHROMOSOMAL SEQUENCES AS PROBES TO IDENTIFY SALMONELLA SPECIES** *JOURNAL OF INFECTIOUS DISEASES*
Tompkins, L. S., Troup, N., LABIGNEROUSSSEL, A., Cohen, M. L.
1986; 154 (1): 156-162
- **DNA METHODOLOGIES IN DIAGNOSTIC MICROBIOLOGY** *SURVEY AND SYNTHESIS OF PATHOLOGY RESEARCH*
Tompkins, L. S., FALKOW, S.
1983; 2 (1-2): 134-140
- **GROWING PROBLEM OF BACTERIAL-RESISTANCE** *DRUG THERAPY*
Tompkins, L. S., FALKOW, S.
1979; 9 (5): 39-46